

CLAIMS

1. A first device ~~(200)~~ comprising:
 - a first communication endpoint ~~(210)~~ configured to establish a connection with a user device ~~(240)~~;
 - an access to one or more first data storages ~~(220)~~ storing:
 - user credentials for a plurality of users;
 - a set of identifiers of resources to be presented to one or more users belonging to said plurality of users stored on two or more second data storages ~~(280, 281)~~ accessed respectively by two or more second devices ~~(250, 251)~~, each identifier in the set having associated therewith access rights, and an identifier of a second communication endpoint ~~(260, 261)~~ of a second device ~~(250, 251)~~ having an access to a second data storage ~~(280, 281)~~ storing the resource;
 - one or more first processing logics ~~(230, 231)~~ configured, upon receiving a request ~~(500b, 500c)~~ from the user device ~~(240)~~ to access a said resource, said request comprising a said identifier of the resource, to:
 - verify, based on access rights associated with the received resource identifier, if the user has the right to access the requested resource;
 - if a said user associated with said user device ~~(240)~~ has the right to access the requested resource, to send ~~(540b, 560c)~~ to the user device ~~(240)~~ the identifier of the communication endpoint ~~(260)~~ of the second device ~~(250)~~ having an access to the second data storage ~~(280)~~ storing the resource.
2. The first device ~~(200)~~ of claim 1, wherein said one or more first processing logics are configured ~~(231)~~, upon an authentication request from the user device further comprising a user credential, to authenticate the user associated with said user device based on said user credential and user credentials for the plurality of users.

3. The first device of one of claims 1 or 2, further comprising a third communication endpoint ~~(211)~~ configured to establish a connection with one or more fourth communication endpoints ~~(290, 291)~~ of the one or more second devices ~~(250, 251)~~.

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4. The first device of claim 3, wherein the first processing logic ~~(230)~~ is further configured, upon the reception of a resource identifier creation request ~~(520a)~~ from one of the second devices ~~(250)~~, to:

- create a unique identifier of a resource;
- 10 - associate to said unique identifier of the resource an identifier of said one the two or more second devices ~~(250)~~, or a second communication endpoint ~~(260)~~ thereof;
- send ~~(540a)~~ to said one the two or more second devices ~~(250)~~ the unique identifier of the resource.

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5. The first device of ~~one of claims 2 or one of claims 3 and~~ one of claims 2 or one of claims 3 and 4, when dependent upon claim 2, wherein the one or more first processing logics ~~(230, 231)~~ are further configured to:

- generate identification data allowing the one or more second devices ~~(250, 251)~~ to identify the user and grant access to the resource, and identification validation data allowing ~~the a~~ a validation of ~~the an~~ an identification of the user;
- 20 - send to the user device ~~(240)~~ the identification data.

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6. The first device of claim 5, when dependent upon claim 3, wherein the one or more first processing logics ~~(231)~~ are configured, upon a reception, from said second device ~~(250)~~ having an access to the second data storage ~~(280)~~ storing the resource, a request to identify the user comprising said identification data ~~(580e)~~, to:

- 30 - validate the identification of the user based on said identification data and said identification validation data;

- if the identification is validated, send to said second device ~~(250)~~ a validation of the identification of the user and the right of the user to access the resource.

5 7. The first device of claim 5, when dependent~~ing upon~~ claim 3, wherein the one or more first processing logics ~~(231)~~ are configured, upon a reception, from said second device ~~(250)~~ having an access to the second data storage ~~(280)~~ storing the resource, of a request to identify the user comprising said identification data ~~(580e)~~, to send to said second device ~~(250)~~ having an access
10 to the second data storage ~~(280)~~ storing the resource said identification validation data.

8. The first device of claim 5, when dependent~~ing upon~~ claim 3, wherein the one or more first processing logics ~~(231)~~ are configured, upon the generation of
15 the user validation data, to send to the one or more second devices ~~(250, 251)~~ identification validation data.

9. The first device of claim 5, wherein the one or more first processing logics ~~(231)~~ are configured to generate the identification validation data based
20 on the identification data and shared secret keys ~~(500e)~~ that are common the first device ~~(200)~~ and the one or more second devices ~~(250, 251)~~.

10. The first device of one of claims 5 to 9, wherein the identification data is a token, and the identification validation data is a signature of the token.
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11. A method ~~(700)~~ comprising:
- receiving ~~(710)~~ a request ~~(500b, 500c)~~ from a user device ~~(240)~~ to access a resource, said request comprising an identifier of the resource;
- accessing ~~(720)~~ one or more first data storages ~~(220)~~ storing:
30 ▪ user credentials for a plurality of users-;
 ▪ a set of identifiers of a set of resources to be presented to one or more users belonging to said plurality of users, comprising

said requested resource, said set of resources stored on two or more second data storages ~~(280, 281)~~ accessed respectively by two or more second devices ~~(250, 251)~~, each identifier in the set having associated therewith access rights, and an identifier of a second communication endpoint ~~(260, 261)~~ of a second device ~~(250, 251)~~ having an access to a second data storage ~~(280, 281)~~ storing the resource-;

- verifying ~~(730)~~, based on access rights associated with the resource identifier, if a user associated with said user device ~~(240)~~ has the right to access the resource;
- if the user associated with said user device ~~(240)~~ has the right to access the resource, sending ~~(740, 540b, 560c)~~ to the user device ~~(240)~~ the identifier of the communication endpoint ~~(260)~~ of the second device ~~(250)~~ having an access to the second data storage ~~(280)~~ storing the requested resource.

12. A computer program product comprising:

- a non-transitory computer-readable storage medium; and
- program code stored on the non-transitory computer-readable storage medium that, when executed by one or more processors, causes the one or more processors to:
 - receive a request ~~(500b, 500c)~~ from a user device ~~(240)~~ to access a resource, said request comprising an identifier of the resource;
 - access one or more first data storages ~~(220)~~ storing:
 - user credentials for a plurality of users-;
 - a set of identifiers of a set of resources to be presented to one or more users belonging to said plurality of users, comprising said requested resource, said set of resources stored on two or more second data storages ~~(280, 281)~~ accessed respectively by two or more second devices ~~(250, 251)~~, each identifier in the set having associated therewith access rights, and an identifier of a second communication endpoint ~~(260,~~

~~261)~~ of a second device ~~(250, 251)~~ having an access to a second data storage ~~(280, 281)~~ storing the resource-;

- verify, based on access rights associated with the resource identifier, if a user associated with said user device ~~(240)~~ has the right to access the resource;

- if the user associated with said user device ~~(240)~~ has the right to access the resource, send to the user device ~~(240)~~ the identifier of the communication endpoint ~~(260)~~ of the second device ~~(250)~~ having an access to the second data storage ~~(280)~~ storing the requested resource.

13. A first device ~~(200)~~ comprising:

- an access to one or more first data storages ~~(220)~~ storing:

- user credentials for a plurality of users;

- a set of identifiers of resources to be presented to one or more users belonging to said plurality of users, stored on two or more second

data storages ~~(280, 281)~~ accessed respectively by two or more second devices ~~(250, 251)~~, each identifier in the set having associated therewith access rights, and an identifier of a second communication endpoint ~~(260, 261)~~ of a second device ~~(250, 251)~~ having an access to a second data storage ~~(280, 281)~~ storing the resource;

- a third communication endpoint ~~(211)~~ configured to establish a connection with one or more fourth communication endpoints ~~(290, 291)~~ of the ~~one two~~ or more second devices ~~(250, 251)~~;

- a first processing logic ~~(230)~~ configured, upon the reception of a request of creation of a unique identifier of a resource ~~identifier creation request (520a)~~ from one of the two or more second devices ~~(250)~~, to:

- create a said unique identifier of a said resource;

- associate to said unique identifier of the resource an identifier of said one of the two or more second devices ~~(250)~~, or a second communication endpoint ~~(260)~~ thereof;

- send ~~(540a)~~ to said one of the second devices ~~(250)~~ the unique identifier of the resource.

14. A computer-implemented method comprising:

- receiving, by a first device, a resource identifier creation request of creation of a unique identifier of a resource (520a) from one of two or more second devices ~~(250)~~, said first device having ;
- accessing to one or more first data storages (220) storing:
 - user credentials for a plurality of users;
 - a set of identifiers of a set of resources to be presented to one or more users belonging to said plurality of users, said set of resources stored on two or more second data storages ~~(280, 281)~~ accessed respectively by said two or more second devices ~~(250, 251)~~, each identifier in the set having associated therewith access rights, and an identifier of a second communication endpoint ~~(260, 261)~~ of a second device ~~(250, 251)~~ having an access to a second data storage ~~(280, 281)~~ storing the resource;
- said first device further comprising a third communication endpoint configured to establish a connection with one or more fourth communication endpoints of the two or more second devices;
- then, creating, by said first device, a said unique identifier of a said resource;
- then, associating, by said first device, to said unique identifier of the resource an identifier of said one of the two or more second devices (250), or a second communication endpoint (260) thereof;
- then, sending (540a), by the first device, to said one of the two or more second devices (250) the unique identifier of the resource.

15. A computer program product comprising:

- a non-transitory computer-readable storage medium; and
- program code stored on the non-transitory computer-readable storage medium that, when executed by one or more processors of a computer having:

- an access to one or more first data storages storing:
 - user credentials for a plurality of users;
 - a set of identifiers of a set of resources to be presented to one or more users belonging to said plurality of users, said set of resources stored on two or more second data storages accessed respectively by said two or more second devices, each identifier in the set having associated therewith access rights, and an identifier of a second communication endpoint of a second device having an access to a second data storage storing the resource;
- a third communication endpoint configured to establish a connection with one or more fourth communication endpoints of two or more second devices;

causes the one or more processors to:

- receive a request of creation of an identifier of a resource identifier creation request (520a) from one of two or more second devices ~~(250)~~;
- ~~— access one or more first data storages (220) storing:~~
 - ~~▪ user credentials for a plurality of users ;~~
 - ~~▪ a set of identifiers of a set of resources, said set of resources stored on two or more second data storages (280, 281) accessed respectively by said two or more second devices (250, 251), each identifier in the set having associated therewith access rights, and an identifier of a second communication endpoint (260, 261) of a second device (250, 251) having an access to a second data storage (280, 281) storing the resource ;~~
- then, create a said unique identifier of a said resource;
- then, associate to said unique identifier of the resource an identifier of said one of the two or more second devices ~~(250)~~, or a second communication endpoint ~~(260)~~ thereof;
- then, send ~~(540a)~~ to said one of the two or more second devices ~~(250)~~ the unique identifier of the resource.