Claims

We claim,

1. A method for initiating a task-based operation between a first communication device and a second communication device, the method comprising:

   receiving a request to initiate the task-based operation between the first communication device and the second communication device;

   identifying pre-defined instructions pertaining to one or more authentication patterns for initiation of the task-based operation;

   sending a request to at least one of the first communication device and the second communication device to generate an authentication pattern to initiate the task-based operation;

   receiving authentication pattern generated by at least one of the first communication device and the second communication device;

   determining if received authentication patterns are in accordance with the pre-defined instructions; and

   initiating the task-based operation between the first communication device and the second communication device if received authentication patterns are found to be in accordance with the pre-defined instructions.

2. The method as claimed in claim 1, wherein the pre-defined instructions comprises details pertaining to execution of one or more authentication patterns for initiating the task-based operation, and wherein said details include type of authentication patterns for initiating a task based operation; a sequence of authentication patterns to be executed initiating a task based operation; type of devices to be used for executing authentication patterns for initiating a task based operation; priority order of tasked based operation to be initiated in case of a plurality of task based operations.

3. The method as claimed in claim 1, wherein the task-based operation is initiated between the first communication device and the second communication device if the authentication pattern generated by the first communication device matches with authentication pattern generated by the second communication device, or if the authentication pattern generated by the first communication device and the second communication device matches with a pre-defined authentication pattern.

4. The method as claimed in claim 1, wherein the task-based operation is initiated between the first communication device and the second communication device if the authentication pattern generated by the first communication device and the second communication device are generated within a pre-defined time frame.

5. The method as claimed in claim 1, wherein the task-based operation is initiated between the first communication device and the second communication device if the first communication device and the second communication device are in closed proximity or in contact with each other.

6. The method as claimed in claim 1, wherein the task-based operation is initiated between the first communication device and the second communication device if the authentication pattern generated by the first communication device and the second communication device are generated through devices of same type.

7. The method as claimed in claim 1, wherein the authentication pattern is selected from one or more of: entering of a unique pin, entering of a unique password, shaking of a smart wearable device or a mobile device in a particular manner, performing gesture actions using the smart wearable device or mobile device, capturing of sensor values using the smart wearable device or mobile device or both, performing a particular sequence or pattern of any of the above input actions.

8. The method as claimed in claim 1, further comprising:

capturing a pattern of vibrations generated upon tapping of the first communication device with the second communication device;

receiving the pattern of vibrations, gyroscope values and time stamps of the first communication device and the second communication device;

comparing the pattern of vibrations, gyroscope values and time stamps in accordance with the pre-defined instructions; and

initiating the task-based operation between the first communication device and the second communication device.

9. The method as claimed in claim 8, further comprising:

determining an angle alignment between first and second communication devices using the gyroscope values; and

initiating the task-based operation between the first communication device and the second communication device when there is a match of angle alignment between the first and second communication devices.

10. The method as claimed in claim 1, further comprising:

accessing profile of the first user and the second user;

initiating the task-based operation between the first communication device and the second communication device in accordance with the profile of the user.

11. The method as claimed in claim 1, wherein the task-based operation includes at least one or more of a file and data transfer, payment transaction, communication message transfer, and a remote access.

12. The method as claimed in claim 1, further comprising:

receiving authentication requests from the first communication device for a first user and from the second communication device for a second user respectively;

authenticating the first and the second user respectively in accordance with at least one pre-configured authentication method selected by the first user and the second user, said pre-configured authentication method involving execution of one or more authentication patterns.

13. The method as claimed in claim 12, wherein said one or more authentication patterns are different or similar from authentication patterns for initiation of said task based operation.

14. The method as claimed in claim 1, further comprising; defining said pre-defined instructions, wherein defining includes one or more of: defining type of authentication patterns for initiating a task based operation; defining a sequence of authentication patterns to be executed initiating a task based operation; defining type of devices to be used for executing authentication patterns for initiating a task based operation; defining priority order of tasked based operation to be initiated in event of a plurality of task based operations, defining proximal distance or contact values between first communication device and the second communication device for initiating task based operation.

15. A system for initiating a task-based operation between a first communication device and a second communication device, the method comprising:

a first receiving unit for receiving a request to initiate the task-based operation between the first communication device and the second communication device;

a processing unit for identifying pre-defined instructions pertaining to one or more authentication patterns for initiation of the task-based operation;

a transmitting unit for sending a request to at least one of the first communication device and the second communication device to generate an authentication pattern to initiate the task-based operation;

a second receiving unit for receiving authentication pattern generated by at least one of the first communication device and the second communication device;

an authentication engine for determining if received authentication patterns are in accordance with the pre-defined instructions; and

a controlling unit for initiating the task-based operation between the first communication device and the second communication device if received authentication patterns are found to be in accordance with the pre-defined instructions.

16. The system as claimed in claim 15, wherein the controlling unit is configured to initiate task-based operation between the first communication device and the second communication device on meeting one or more of: if the authentication pattern generated by the first communication device matches with authentication pattern generated by the second communication device; if the authentication pattern generated by the first communication device and the second communication device matches with a pre-defined authentication pattern; if the authentication pattern generated by the first communication device and the second communication device are generated within a pre-defined time frame; if the authentication pattern generated by the first communication device and the second communication device are generated through devices of same type, if the first communication device and the second communication device are in closed proximity or in contact with each other.

17. The system as claimed in claim 15, wherein the authentication pattern is selected from one or more of: entering of a unique pin, entering of a unique password, shaking of a smart wearable device or a mobile device in a particular manner, performing gesture

actions using the smart wearable device or mobile device, capturing of sensor values using the smart wearable device or mobile device or both, performing a particular sequence or pattern of any of the above input actions, wherein the authentication pattern is performed using at least one of a smart wearable device, and a smart phone.

18. The system as claimed in claim 15, wherein the controlling unit is configured for capturing a pattern of vibrations generated upon tapping of the first communication device with the second communication device; receiving the pattern of vibrations, gyroscope values and time stamps of the first communication device and the second communication device; comparing the pattern of vibrations, gyroscope values and time stamps in accordance with the pre-defined instructions; and initiating the task-based operation between the first communication device and the second communication device based on comparison.

19. The system as claimed in claim 18, wherein the controlling unit is further configured for determining an angle alignment between first and second communication devices using the gyroscope values; and initiating the task-based operation between the first communication device and the second communication device when there is a match of angle alignment between the first and second communication devices.

20. The system as claimed in claim 15, wherein the task-based operation includes at least one or more of a file and data transfer, payment transaction, communication message transfer, and a remote access.

Claims

We claim:

1. A method for initiating a task-based operation between a first communication device and a second communication device, the method comprising:

receiving, by a first receiving unit (1202), a request to initiate the task-based operation between the first communication device and the second communication device;

identifying, by a processing unit (1208), pre-defined instructions pertaining to one or more authentication patterns for initiation of the task-based operation;

sending, by a transmitting unit, a request to at least one of the first communication device and the second communication device to generate an authentication pattern to initiate the task-based operation;

receiving, by a second receiving unit, authentication pattern generated by at least one of the first communication device and the second communication device, wherein receiving authentication pattern includes of capturing the authentication pattern of vibrations generated upon tapping of the first communication device with the second communication device and receiving the authentication pattern of vibrations, gyroscope values and time stamps of the first communication device and the second communication device;

determining, by an authentication engine, the authentication patterns, if received authentication patterns are in accordance with the pre-defined instructions, wherein determining the authentication patterns includes of comparing the authentication pattern of vibrations, gyroscope values and time stamps in accordance with the pre-defined instructions;

initiating, by a controlling unit (1212), the task-based operation between the first communication device and the second communication device if received authentication patterns are found to be in accordance with the pre-defined instructions, wherein initiating the task-based operation includes of determining, by a gyroscope module (216), an angle alignment between first and second communication devices using the gyroscope values; and

initiating the task-based operation between the first communication device and the second communication device when there is a match of angle alignment between the first and second communication devices.

2. The method as claimed in claim 1, wherein the pre-defined instructions comprises details pertaining to execution of one or more authentication patterns for initiating the task-based

operation, and wherein said details include type of authentication patterns for initiating a task based operation; a sequence of authentication patterns to be executed initiating a task based operation; type of devices to be used for executing authentication patterns for initiating a task based operation; priority order of tasked based operation to be initiated in case of a plurality of task based operations.

3. The method as claimed in claim 1, wherein the task-based operation is initiated between the first communication device and the second communication device if the authentication pattern generated by the first communication device matches with authentication pattern generated by the second communication device, or if the authentication pattern generated by the first communication device and the second communication device matches with a pre-defined authentication pattern.
4. The method as claimed in claim 1, wherein the task-based operation is initiated between the first communication device and the second communication device if the authentication pattern generated by the first communication device and the second communication device are generated within a pre-defined time frame.
5. The method as claimed in claim 1, wherein the task-based operation is initiated between the first communication device and the second communication device if the first communication device and the second communication device are in closed proximity or in contact with each other.
6. The method as claimed in claim 1, wherein the task-based operation is initiated between the first communication device and the second communication device if the authentication pattern generated by the first communication device and the second communication device are generated through devices of same type.
7. The method as claimed in claim 1, wherein the authentication pattern is selected from one or more of: entering of a unique pin, entering of a unique password, shaking of a smart wearable device (102) or a mobile device (104) in a particular manner, performing gesture actions using the smart wearable device (102) or mobile device (104), capturing of sensor values using the smart wearable device (102) or mobile device (104) or both, performing a particular sequence or pattern of any of the above input actions.
8. The method as claimed in claim 1, comprising:

   accessing profile of the first user and the second user;

   initiating the task-based operation between the first communication device and the second communication device in accordance with the profile of the user.

9. The method as claimed in claim 1, wherein the task-based operation includes at least one or more of a file and data transfer, payment transaction, communication message transfer, and a remote access.
10. The method as claimed in claim 1, comprising:

receiving authentication requests from the first communication device for a first user and from the second communication device for a second user respectively;

authenticating the first and the second user respectively in accordance with at least one pre -configured authentication method selected by the first user and the second user, said pre -configured authentication method involving execution of one or more authentication patterns.
11. The method as claimed in claim 10, wherein said one or more authentication patterns are different or similar from authentication patterns for initiation of said task based operation.
12. The method as claimed in claim 1, comprising: defining said pre-defined instructions, wherein defining includes one or more of: defining type of authentication patterns for initiating a task based operation; defining a sequence of authentication patterns to be executed initiating a task based operation; defining type of devices to be used for executing authentication patterns for initiating a task based operation; defining priority order of tasked based operation to be initiated in event of a plurality of task based operations, defining proximal distance or contact values between first communication device and the second communication device for initiating task based operation.
13. A system for initiating a task-based operation between a first communication device and a second communication device, the system comprising:

a first receiving unit (1202) for receiving a request to initiate the task-based operation between the first communication device and the second communication device;

a processing unit (1208) for identifying pre-defined instructions pertaining to one or more authentication patterns for initiation of the task-based operation;

a transmitting unit for sending a request to at least one of the first communication device and the second communication device to generate an authentication pattern to initiate the task-based operation;

a second receiving unit for receiving authentication pattern generated by at least one of the first communication device and the second communication device, wherein the second receiving unit for capturing the authentication pattern of vibrations generated upon tapping of the first communication device with the second communication device

and receiving the authentication pattern of vibrations, gyroscope values and time stamps of the first communication device and the second communication device;

an authentication engine for determining the authentication patterns if received authentication patterns are in accordance with the pre-defined instructions, wherein the authentication engine for comparing the authentication pattern of vibrations, gyroscope values and time stamps in accordance with the pre-defined instructions; and

a controlling unit (1212) for initiating the task-based operation between the first communication device and the second communication device if received authentication patterns are found to be in accordance with the pre-defined instructions, wherein the controlling unit (1212) for determining, by a gyroscope module (216), an angle alignment between first and second communication devices using the gyroscope values; and initiating the task-based operation between the first communication device and the second communication device when there is a match of angle alignment between the first and second communication devices.

14. The system as claimed in claim 13, wherein the controlling unit (1212) is configured to initiate task-based operation between the first communication device and the second communication device on meeting one or more of: if the authentication pattern generated by the first communication device matches with authentication pattern generated by the second communication device; if the authentication pattern generated by the first communication device and the second communication device matches with a pre-defined authentication pattern; if the authentication pattern generated by the first communication device and the second communication device are generated within a pre-defined time frame; if the authentication pattern generated by the first communication device and the second communication device are generated through devices of same type, if the first communication device and the second communication device are in closed proximity or in contact with each other.

15. The system as claimed in claim 13, wherein the authentication pattern is selected from one or more of: entering of a unique pin, entering of a unique password, shaking of a smart wearable device or a mobile device in a particular manner, performing gesture actions using the smart wearable device (102) or mobile device (104), capturing of sensor values using the smart wearable device (102) or mobile device (104) or both, performing a particular sequence or pattern of any of the above input actions, wherein the

authentication pattern is performed using at least one of a smart wearable device (102), and a smart phone.

16. The system as claimed in claim 13, wherein the task-based operation includes at least one or more of a file and data transfer, payment transaction, communication message transfer, and a remote access.