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# Patentability Search Report On

"CryptoChat - An Encrypted Communication Platform"

(Our Ref. No. PS00018878)



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# 1. Understanding of Subject Matter

The proposed invention relates to a communication method to ensure confidentiality by converting standard text messages into Morse code before delivery. This method includes self-erasing messages upon a single viewing, preventing unauthorized access to sensitive information. To further enhance security, users must undergo rigorous authentication procedures, including Unique ID submission, password validation, and biometric verification.

# Proposed Invention's Aspects/Features Having Potential of Being "Novel" and/or "Inventive"

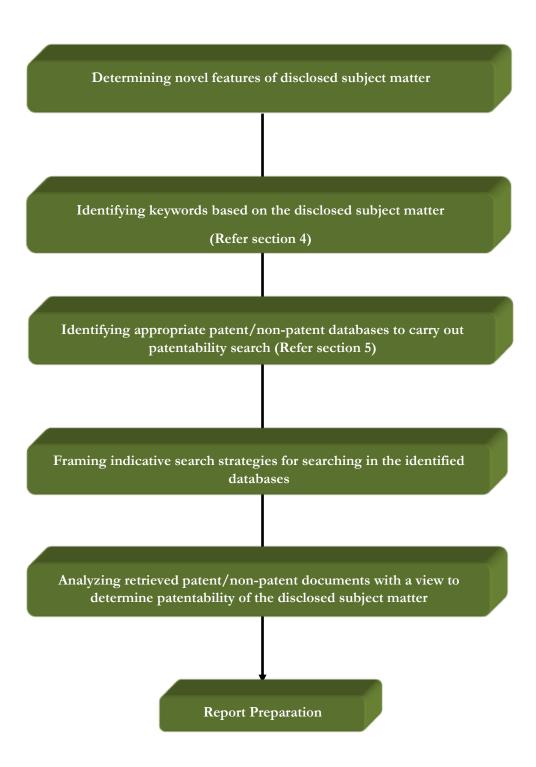
**Feature F1:** A communication method to ensure the utmost security and confidentiality in messaging, comprising:

- a) converting a message into Morse code to encrypt the message during transmission, thereby enhancing the encryption level and mitigating the risk of interception and unauthorized access;
- b) displaying the encrypted message in Morse code format to ensure message confidentiality by safeguarding sensitive information from unauthorized viewing;
- c) automatically deleting the message upon the recipient's confirmation of reading, thereby preventing retention of sensitive information and enhancing overall data security;
- d) implementing a multi-factor authentication process, including a unique user ID, password, and biometric verification, to secure access at every stage of communication and prevent unauthorized access, ensuring that only authorized personnel can access the messaging platform.



# 2. Research Methodology

The following search methodology was adopted for finding relevant prior art documents



# 3. Databases Used

# Patabases QUESTEL ORBIT THOMSON INNOVATION USPTO ESPACENET WIPO GOOGLE PATENTS PATENT LENS PATENT LENS PERE PATENT ONLINE DEPATISNET Non-Patent Database GOOGLE SCHOLAR FREE XPLORE FREEFULL PDF



## 4. Identified Prior Art References

#### Reference 1

Patent Literature		
Patent Number	<u>KR10-2008-0098153A</u>	
Title	Portable terminal and method of providing a code conversion function	
Application Date	2007-05-04	

# Closest Text From this Reference is Reproduced Below

## [Abstract]

PURPOSE: A method for providing a code conversion function in a portable terminal is provided to protect private life as offering amateur radio communication. CONSTITUTION: A portable terminal (100) comprises a key input unit (108), a code converting unit and a transceiver. The key input unit has a plurality of key buttons matched with specific codes. The code converting unit converts an inputted specific message into corresponding codes to generate a coded message. The transceiver transmits the coded message generated from the code converting unit to an external terminal. The portable terminal matches existing codes (for example, the Mores codes) or codes set by a user with the key buttons.

#### [Claim 1]

A key input unit having a plurality of key buttons matching specific symbols;

A code conversion unit configured to generate a code message by converting a specific message into corresponding codes when the specific message is input; and And a transmitting/receiving unit configured to transmit a code message generated from the code converter to an external terminal.

#### [Claim 2]

The portable terminal having a code conversion function according to claim 1, wherein Morse codes are matched to each key button.

# [Description]

Referring back to the configuration of the portable terminal 100, the mode unit 202 provides a specific mode from which the user can select through the display unit 106. For example,

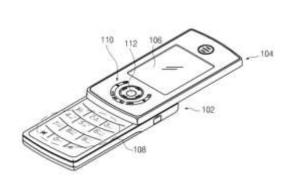


the mode unit 202 displays the Morse communication mode through the display unit 106 so that the user can select the Morse communication mode when the user presses a specific keybutton.

When a user selects a Morse communication mode and presses predetermined keybuttons, a Morse converting unit (204) converts a message corresponding to the pressed keybuttons into Morse codes. For example, when the user manipulates the keybuttons and enters "love", mors converting unit 204 converts the "love" into a message of "Thridon done dondon dondon donth dont

The memory 206 stores information on Morse Signs and information related to various programs, and so on. A wireless transceiver (208) transmits a Morse signal having a message converted by a Morse converter (204) to an external terminal.

100





#### Reference 2

Patent Literature			
Patent Number	<u>KR10-2003-0010337</u>		
Title	Method for informing of message by using morse code in mobile terminal		
Application Date	2001-07-26		

# Closest Text From this Reference is Reproduced Below

#### [Abstract]

PURPOSE: A method for informing of a message by using a Morse code in a mobile terminal is provided to allow a user in an emergency to make communication with the other party by inputting or selecting a message, converting it into a corresponding Morse code sentence and outputting it to an LCD backlight so as to blink. CONSTITUTION: When a user presses a menu key for Morse code communication (S200), a mobile terminal displays menu items including a 'illumination setting' item (S202). When the user selects a menu item of 'Morse code communication' (S204), the mobile terminal displays a window for inputting a message on an LCD (S206). If the user inputs a message, it is stored in a memory (S208). The mobile terminal converts the inputted message into a corresponding Morse code sentence (S210) and outputs the corresponding Morse code sentence to an LCD backlight so as to blink (S212).

#### [Claim 1]

A message notification method using a mos code in a mobile communication terminal, A first step in which, when a user selects a menu item for mos code communication by pressing a menu key, the mobile communication terminal displays a window through which a message can be input;

A second step of converting, by the mobile communication terminal, the stored message into a corresponding mos code sentence when the message is input and stored in the message input window; and

A third step of outputting the Morssign sentence to an LCD backlight to blink; Based on the total weight of the message.

## [Description]



FIG. 1 is an internal configuration view of a mobile communication terminal according to a preferred embodiment of the present invention, and includes a keypad 100, a memory 102, a control unit 104, and a liquid crystal screen (LCD) 106.

When the user inputs a message to the liquid crystal screen 106, the keypad 100 receives a user command and transmits the message input by the user to the controller 104.

The memory 102 stores various information such as mos code data corresponding to Hangle and English text, and a program for operating the mobile communication terminal.

The control unit 104 converts the message input by the user through the keypad 100 into a Morse Code sentence and outputs it to the LCD 106 backlight.

Liquid crystal screen 106 displays a message entered by a user.



#### Reference 3

Patent Literature		
Patent Number	<u>US20110213845A1</u>	
Title	Automatic deletion of electronic messages	
Application Date	2010-02-26	

# Closest Text From this Reference is Reproduced Below [Abstract]

A system and method are provided for automatically deleting messages such as e-mail upon consumption by the recipient. Consumption by the recipient may include viewing the message, forwarding or replying to the message, or archiving, saving, copying, or moving the message. An indicator is inserted in the message, for example in the message header or body, indicating that the message is to be deleted upon detection of a triggering consumption action. Upon receipt at the recipient's mail client, the client determines whether the indicator is present, and, upon detection of a triggering consumption action, automatically closes any views of the message displayed by the recipient's mail client and deletes the message. Optionally a warning is provided to the recipient prior to deletion.

# [Claim 1]

A system for handling a message received at a communication device, the system comprising:

a memory for storing the message upon receipt at the communication device; and a processor configured to:

determine that the message comprises an indicator that the message is to be deleted upon detection of a first consumption-related triggering event;

detect an occurrence of said triggering event; and

delete the message from the memory upon detection of the occurrence of said triggering event.

#### [Claim 2]

The system of claim 1, wherein the triggering event comprises at least one of: closing a display of the message at the communication device; moving focus away from the display of the message at the communication device;

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- a command to reply to the sender of the message;
- a command to forward the message;
- a command to copy at least a part of a content of the message;
- a command to save the message;
- a command to move the message to another location at the communication device; or
- a command to print the message.



# 5. Summary

The below table shows a mapping of inventive aspects (as defined in <u>section 1</u> of the report) with teachings of the prior art references we identified and cited.

This table will help identify truly inventive aspects of the proposed invention.

	Feature 1
	(F1)
Reference 1	<b>√</b> *
	[Abstract]
	[Claim 1, 2]
	[Description]
Reference 2	<b>√</b> *
	[Abstract]
	[Claim 1]
	[Description]
Reference 3	<b>√</b> ∗
	[Abstract]
	[Claim 1, 2]

<sup>\*</sup>Though this aspect of the invention is not explicitly disclosed by this prior art references, an objection pertaining to lack of inventive step may be raised.



## 6. Conclusion or Inferences from the Identified Prior Art References

- 1. Cited references 1-3 implicitly disclose feature F1 of the current invention, that is, a system to ensure encrypted communication by incorporating a communication terminal enabling a user to convert text to Morse code. Cited reference 1 discloses an interface to display the converted code. However, cited reference 2 discloses outputting the converted code by blinking of a signal.
- 2. Further, cited reference 3 is disclosing a system for automatic message deletion upon meeting a give preset conditions.
- 3. However, no cited references 1-3 are disclosing a multi-factor authentication process. However, the mere addition of this feature does not contribute to the technical advancement of the current invention.
- 4. Thereby, no cited references 1-3 are disclosing all the aspects/ features of the current invention. Given that, if a patent application is filed, it seems unlikely that the patent office may raise "Lack of Novelty" based objections.
- 5. However, it seems likely that the patent office may raise "Lack of Inventive Step" based objections, due to the presence of prior arts that solve a similar problem as that of the current invention.



#### Note

To qualify for a patent, every invention must include 1) 'Novelty', 2) 'Inventive Step' with non-Obviousness, and 3) 'Industrial Applicability'.

Patent office first aim to find one prior art reference that can disclose all inventive aspects/features of an independent claim of the patent application undergoing the examination process. if/when the Patent office finds such a prior art reference (called Anticipatory Reference), the proposed invention is objected under the grounds of 'Lack the Novelty' as well as "Lack of Inventive Step".

In cases where the Patent office fails to locate an Anticipatory Reference, it moves to combine two or more references to target all individual inventive aspects of the independent claim. If a combination of references is found and which is enough to disclose/teach all individual inventive features/aspects of the invention, just "Lack of Inventive Step" objection is raised (Lack of Novelty objection is not raised).

In cases when the Patent office fails to locate even a combination of references that can disclose/teach all individual inventive features/aspects of the invention, none of the "Lack of Novelty" and "Lack of Inventive Step" objections are raised.



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