

FOR IMMEDIATE RELEASE

## FUJI XEROX DEVELOPS ADVANCED ENCRYPTION TECHNOLOGY FOR THE MOBILE ENVIRONMENT

**TOKYO, September 28, 2012**—Fuji Xerox Co., Ltd. has developed the Mobile Confidential Viewing (MCV) technology; an advanced encryption technology for the mobile environment. This technology enables users to safely manage electronic contents such as office documents, images and videos downloaded onto mobile devices using an electronic ticket containing both a decryption and a re-encryption key that are set with an expiration period.

As shown in Fig. 1, the MCV technology enables users to block the viewing of an electronic file downloaded onto a mobile device automatically after the expiration of the electronic ticket--decryption key and re-encryption key--required for viewing. Furthermore, the target file can continue to be viewed by using new tickets that users can periodically update during the designated period. If the mobile device is misplaced or stolen during the automatic update period, users can stop the ticket distribution server from issuing tickets so that the file stored on the mobile device can no longer be viewed after the current ticket expires, thereby ensuring the security of the contents.

As this is a method to view electronic contents by downloading actual files into a mobile device, users can view the contents regardless of network conditions. As a result, electronic contents on mobile devices can be viewed with both security and convenience.

The increasingly wide-spread use of mobile devices has led to greater demands concerning the viewing of documents in a mobile environment. However, due to information leakage risks when a mobile device is stolen or lost, it has been a challenge to handle confidential documents in a mobile environment using a simple method. There are ways to display contents stored on a server via communication lines without downloading the actual files onto mobile devices in order to prevent the information leakage. However, there have been issues with such mechanisms as the contents cannot always be reliably viewed as usability is dependent on network conditions.

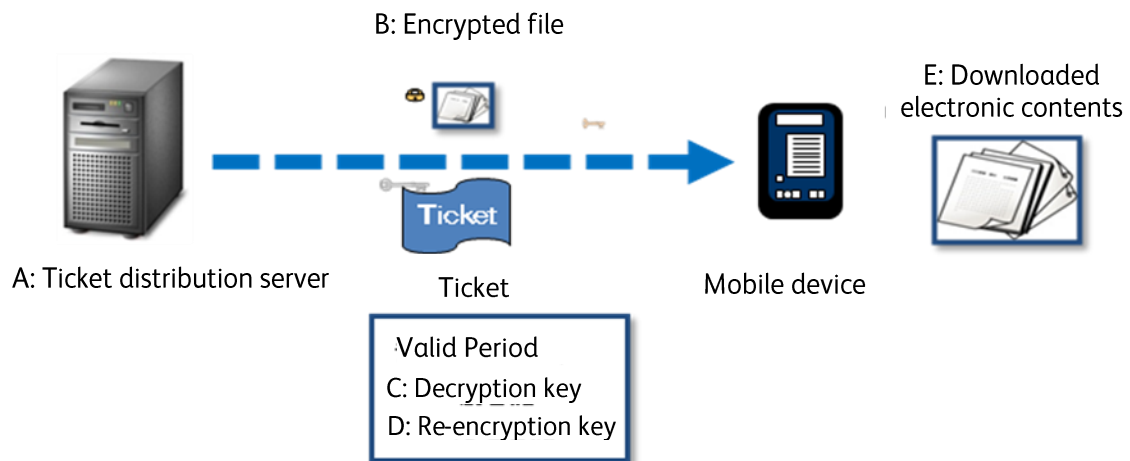
Fuji Xerox designs new mobile services to change customers' work styles based on the action centric<sup>1</sup> principle, which is the controlling of the information flow by focusing attention on the individual's actions. To the MCV technology, the company incorporated the human-centered design<sup>2</sup> approach, which is based on repeated on-site observations and demonstration experiments. The company will continue in-house experiments to deliver mobile services that are both convenient and safe.

Fig. 1: Encryption Technology

An encrypted electronic contents (B), together with an electronic ticket containing a decryption key (C) and a re-encryption key (D) that are set with an expiration period, are sent from the electronic ticket distribution server (A), and received by and downloaded onto a mobile device.

The downloaded electronic contents (E) can be viewed using the decryption key (C). After the ticket expires, viewing of the target file will be automatically blocked by the re-encryption key (D).

The target file can continue to be viewed, however, by setting the ticket distribution server (A) to automatically send new tickets, which can be periodically updated during the designated period, to the mobile device.



- \*1 A principle based on the idea that, by placing focus on the individual's actions, the next action can be prompted by quickly providing information required to decide what the next action shall be.
- \*2 An approach used when designing a new interactive system/service in order to provide users with valuable, easy-to-use design based on the user's point of view.

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