## Abstract

Two keys which are updated in the same updating cycle at different times are prepared as signature keys (main key and auxiliary key) for electronic signature, and the updating cycle of each key is divided into, for example, three periods. The first and last periods after the updating are used for the auxiliary key while the intermediate period is used for the main key, and an electronic signature is carried out with the main key. The electronic signature is confirmed with either of two confirmation keys which are updated synchronously with updating the two keys used as the signature keys. This eliminates the need of stopping issuance of the electronic signature or limiting a service offer upon updating the signature keys.