Description:

Proposed system would enable secure and private transaction for online or offline purchases either with your credit cards, debit cards or even a checking account without carrying any plastics or checkbook. This will also enables purchasing without giving out any personal information (name, card or account numbers, expiration dates and pin codes, etc.). No need to worry about expired credit or debit cards. Any time user wants to do any transaction he/she creates a new one using his/her mobile or web service app or even a tradition phone call (automated call) to a bank institution or a credit card company (aka "Providers"). Since merchants don't get user's personal information, they don’t need to worry about its safety. Users can maintain their privacy and retailers can't misuse user data (like selling it to others as there is nothing to misuse). These transactions will have default expiration date/time so unused transaction becomes obsolete. Google wallet is convenient and already solves part of the problem but to use it you need to use Google services and agree with its terms. Why? Google and other ecosystems are convenient but they are becoming new walled gardens.

Value Proposition:

With this system in place "Providers" don't need to manufacture and distribute millions of debit cards, checks year after year, saving paper and plastic. They don't need to keep track of lost cards and need to worry less about financial fraud due to lost cards.  End user doesn’t need to carry (already happening, e.g. google wallet) or keep track of plastics or check books either. How about urgent money transfer to somebody in need? Imagine a friend is travelling in New York City and he/she is in dire need of immediate money because he/she has lost everything. This solution provides a fastest way possible to get him/her money. In this scenario a Sender creates a transaction with all the details including a secret code (like debit card pin #) and gives this information (a string) to the receiver over the phone who in turn uses it at ATM machine (or special kiosks at 7Elevan or 24-hr stores) to cash in. How about international money transfer?

Solution:

For end user, there will be application (mobile or web) with common interface to all "Providers". User inputs a name for a transaction, assign expiration date, amount, and a pin code (can be different every time) if needed. The input process can be automated with few rules to make it more convenient. Then user submits to a "Provider" of choice at the time, who in turn generates an encrypted string or a number with a bar code (can simply be scanned at the brick-and-mortar store). User can use this string/number at online merchant (for e.g. amazon), which internally could decrypt enough information to know about "Provider". This gets sent to a Provider who can authenticate, decrypt and complete the transaction marking it as "done"in the system. Every provider can have their own encrypt/decrypt technology. This gives user a freedom and improves mobile banking experience.  "Providers" will certainly need to use Intel's best and fast server technology with dedicated encryption/decryption circuitry to provide faster service.