

# Token Service Provider

## Full control over EMV payment tokenization

Tokenization technology is an effective way to keep card data safe during mobile payment transactions. The tokenization process can be outsourced to a third party, but as your transaction volumes grow and business strategy changes, taking full control can often make more sense. Visa's Token Service Provider, leveraging Bell ID technology, is a powerful software platform that gives you that control.



### Why become a token service provider?

A token service provider (TSP) is responsible for the issuance and management of payment tokens. Becoming your own TSP reduces costs and increases security as you avoid tokenization fees and remain the sole guardian of your original card numbers. Also, as you are not dependent on a third party, you can integrate tokenization services on any mobile form factor and any channel as your strategy requires.



### Token service provider

Visa offers a proven software platform that enables you to perform the responsibilities of a Token Service Provider, as outlined by EMVCo. This includes the generation and issuance of payment tokens, as well as the operation and maintenance of a token vault.

### Modular components

Visa Token Service Provider is a modular platform that can also enable you to perform a wide range of other roles in the payments process, such as loading and managing credentials on mobile devices, as well as in the cloud. It also enables the use of tokenization for other channels such as ecommerce transactions.

#### Tokenization management

Reduce fraud by removing confidential consumer card data from the payment network, replacing it with unique tokens which are limited in how they can be used.

#### Transaction management

Perform transactions without making major changes to the authorization host; calculate cryptogram version numbers (CVNs) on behalf of the authorization host.

#### Secure element management

Issue contactless payment cards and provision static card data and dynamic key material to a physical secure element on a mobile device. Compliant with all trusted service manager (TSM) standards.

#### Cloud-based mobile payment management

Host mobile credentials in the cloud using host card emulation (HCE). This module aligns with the cloud-based specifications by all major payment networks. It also includes a plug-in to your existing mobile wallet.

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## Deliverables

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- Tokenization Management
- Transaction Management
- Secure Element Management
- Host Card Emulation Interface

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Figure 1 description: There are two scenarios included in this diagram. The first scenario is for requesting a token. In this case, the card issuer reaches out to Visa's token service provider with the request to tokenize a card number, after which the token service provider tokenizes the number, stores the mapping between the token and the number in a token vault, and returns a token to the card issuer. The card issuer then forwards the token to the mobile device of the customer.

The second scenario shown is for making a payment while using a token. When the customer makes a payment, the mobile device is tapped to the merchant's point of sale terminal and the token is shared. The merchant then sends the token to the token service provider via the acquirer and the payment network. After, the token service provider maps the token back to the original number and sends the original number back to the card issuer to authorize the payment. The card issuer then authorizes or declines the payment and returns this status to the token service provider. Finally, the token service provider shares the response with the merchant via the payment network and the acquirer.

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**Token ID**  
A Visa Solution