SHIELDCONEX® TOKENIZATION

Don't choose between data intelligence and security, choose omni-channel tokenization

All of the data, none of the exposure. Bluefin uses tokens to replace sensitive data in storage or on-the-go by supporting token idempotency, format-preserving tokens and cross-organization sharing.





Token Idempotency allows you to to create identical tokens from identical data, making it possible to perform lookups across channels using only the token.



Format preserving tokens match the length and character of the original data, eliminating the need for system changes.



Share the same tokens on mobile platforms, on-premise systems, the cloud, with partners– anywhere data can and should go.



The core concept of omni-channel commerce is integrating payment touchpoints across channels for a personal user experience. But the ideal user experience requires data to be stored and shared between channels, including Personally Identifiable Information (PII) and in some cases, Protected Health Information (PHI).

ShieldConex uses tokens to replace sensitive data in storage or on the go without changing how an organization's system operates by supporting three key features – **token idempotency**, **format-preserving tokens**, and **cross-organization sharing**. Idempotency means that submitting the same data produces the same token across any channel. The key benefits of this are that unique values produce unique tokens and parity can still be checked between tokenized values. This is crucial for values that are used as lookups in database tables.

Take the example of a customer who is making an in-store card payment. The card number is immediately tokenized in the system because you want to avoid handling the raw data, but you want to be able to tie this transaction to the customer's loyalty account. Without idempotency, looking up the card number would be nearly impossible - requiring you to detokenize the card number just used and then detokenizing each card number in the table to check for a match.

Format preserving tokens serve a different but important role. They match the length and character type of the original PII or PHI data, eliminating the need to make major changes to systems that already handle sensitive data. This may prevent the need to make changes when handling data in code.

Name Jane Smith	frty wsxaq ujhn vcfrt			
Find	yvbf kqxcr uytr vcfrg		Address	
	plmg pgcxa uvzx dsaqw	·•		0987 mig Hviwre
	zasw fdsxu poku hyngb		Account Number	12345 6789 101112
	vgfh trwes iujh hvbgf		Name	iuih hybaf
	uyfe rqwpo tfre hgfdc			
	trey hgbrt rewt eomnh		Email	lkjh@edsqw.hjy

The ability to share these tokens is what allows them to truly be omni-channel. That channel could be a mobile platform, on-premise systems, the cloud, your partners – anywhere data can and should go. Without the ability for multiple organizations to leverage the same token, the data must be exposed before it's sent elsewhere and then re-tokenized upon receipt. This adds complexity to sharing information, but also leaves data exposed and creates more liability for the organizations sharing.

The features are all available in ShieldConex without any additional costs and can be easily configured through our ShieldConex Platform.

