

# nuBridges Protect™

## Product Overview

nuBridges Protect is an integrated encryption, tokenization, key management and audit logging software solution that protects sensitive, business-critical and regulated data in applications and databases. One of the industry's most adaptable data protection solutions, nuBridges Protect secures data on a wide range of enterprise platforms including IBM mainframe, IBM i, Windows, UNIX and Linux; and databases including Oracle, DB2 and Microsoft SQL Server.

### Moving the Boundary to the Data Itself

nuBridges Protect is a perfect companion to strong perimeter and firewall protection. Even if the bad guys manage to get in, as long as sensitive data is unintelligible no matter where it rests, it will be useless to them. Internal breaches, whether accidental or malicious, are thwarted in the same fashion. With nuBridges Protect, any type of data can be secured – Social Security numbers, credit card data, payroll records, National Insurance numbers, financial statements and other proprietary or personally identifiable information.

### Two Methods in One Integrated Solution

nuBridges Protect offers two methods for securing data in applications and databases -- both integrated with a centralized key manager – across such a wide variety of enterprise platforms:

<p><b>Local, field-size-preserving encryption</b></p>	<p>nuBridges Protect encrypts locally at the database or application and stores the cipher text in place of the original value; or, if preserving field size is important, stores the cipher text in a local table and replaces the original values with field-size-preserving surrogate values. Requires no persistent connection to any centralized services at runtime.</p>
<p><b>Format Preserving Tokenization™ with central data vault</b></p>	<p>nuBridges Protect generates format-preserving tokens and inserts them in place of the sensitive data, then encrypts the original data and stores the cipher text in a central data vault. Eliminates cipher text instances throughout the enterprise. (See additional information on Page 2.)</p>

There are benefits to each method that map to typical enterprise use cases. Only nuBridges Protect offers this flexibility in one, integrated solution.

*Tokenization builds upon encryption by replacing sensitive data with tokens. Rather than returning encrypted data back to originating application or database, a token is returned and stored in place of the original data. The token is a reference to the actual cipher text (which is stored in a central data vault) and can be safely used by any file, application, database or backup medium throughout the enterprise.*

## Key Management

Key management is a critical element of any data protection strategy. nuBridges Protect is designed to balance two equally important objectives: (1) Keep keys safe from unauthorized use; and (2) make sure they're available when you need them to decrypt important data. It includes a centralized key manager that generates, distributes, rotates, revokes and deletes keys for both of the data protection methods described above. The Key Manager module of nuBridges Protect has a unique combination of powerful features, including:

- Customer-defined frequency of key rotation.
- No requirement to decrypt/re-encrypt data when rotating keys, which means there is no need to take applications or databases down for key rotation – it occurs with no need to take applications or databases down for key rotation.
- nuBridges Protect enables you to create and distribute keys for use at a later date –“effective date key rotation.” Among many uses for this feature, it facilitates key distribution to clustered database environments where it is critical that each node begin using new keys at exactly the same point in time.

## Security Event Logging

One of the most important capabilities of nuBridges Protect is its extensive logging of security events for compliance, audit and forensics. All access requests to sensitive data are logged with information about the function, user (individual or application), encryption resources used, data accessed and when the access took place. All audit logs are Syslog-compliant, providing easy integration with SIEM packages.



## Spotlight on the Token Manager Module of nuBridges Protect™

nuBridges Protect Token Manager is the industry's first data security software that integrates strong encryption, unified key management and a new variation on tokenization - Format Preserving Tokenization™ - into one solution. Built on the flexible nuBridges Protect architecture, it is engineered to minimize impact on existing systems and maximize data protection.

### Introducing a New Model - Format Preserving Tokenization.

This new tokenization model expands the encryption and key management capabilities of nuBridges Protect with the ability to intercept the data you want to protect and replace it with data surrogates, or tokens. Tokens can be safely used by any application or database without risk of exposing sensitive data. When applications or databases require the clear-text value, they simply make a call to the Token Manager and present the token. The Token Manager validates the request credentials and, if authorized, looks up the token in the data vault, identifies the appropriate cipher text, decrypts the value and presents it back to the database or application.

## Gain Efficiency on Multiple Levels

By centralizing the storage of encrypted data into a secure data vault, the Token Manager significantly minimizes the number of locations where encrypted values reside. Reducing the distributed footprint of encrypted data narrows the scope of systems, applications and processes that are subject to PCI DSS and other security audits; and simplifies security policy management. It also solves the age-old problem of how to support systems development and testing – now enterprises can provide developers with tokens that look and act just like production data without exposing any sensitive information at all.

With this format-preserving model, tokens that maintain the length and format of the original data can be generated for all types of sensitive customer, employee and company confidential information. This minimizes impact on existing systems because the token matches the format of the original value.

nuBridges Protect enforces a one-to-one relationship between tokens and data values for referential integrity across systems and databases, enabling data and trend analysis to continue uninterrupted.

The Token Manager uses a browser-based interface for simple, real-time system administration, policy management and reporting. This interface also generates security events over Syslog that can be routed to any SIEM device for analysis, long-term storage and forensics.

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### About nuBridges

nuBridges is a leading provider of software and services to protect sensitive data at rest and in transit, and to transfer data internally or externally with end-to-end security, control and visibility. nuBridges data protection, managed file transfer and B2B integration solutions are used to comply with security mandates and to digitally integrate business processes among enterprises, systems, applications and people. Over 3,000 customers depend on nuBridges secure eBusiness solutions to encrypt millions of credit cards, exchange billions of dollars in B2B transactions and enable countless business-critical file transfers including Walmart, Amazon.com, Timberland, American Eagle Outfitters, Belk, Bon Ton, Wachovia, Sun Trust, AIG, CheckFree, Bank of America and Verizon. nuBridges is headquartered in Atlanta, Georgia, USA.

