XYGATE Technology Corp.
Leading in mission-critical security solutions for the HPE NonStop™ Servers.

- Solutions and expertise in NonStop cyber security and compliance
  - Founded in 1983 and based in Simi Valley, CA
  - Over 75 employees worldwide
  - Globally-based sales, support and services
  - Over 150 direct enterprise customers
  - Strong partnership with HPE
  - 2013 AllianceOne partner of the year in the security category
XYGATE Security Solutions
Leading in mission-critical security solutions for the HPE NonStop™ Servers.
XYGATE Data Protection

Industry standard security with no application or database changes

Protect Your Data

The information age has seen the development of electronic pathways carrying vast amounts of valuable private, commercial, scientific and educational information between businesses and individuals, including financial and government organizations.

Protect business data: at rest & in transit.
Voltage Security acquired by HPE in February 2015

Leading experts in data-centric security
- Format-Preserving Encryption (FPE)
- Secure Stateless Tokenization (SST)
- Protect structured and unstructured data enterprise-wide
- Contribute technology to multiple standards organizations

Market leadership—Voltage solutions used by:
- 6 of the 8 top U.S. payment processors
- 7 of the 10 top U.S. banks
- Over 1,100 enterprises around the world
- World’s largest merchants and retailers

Leading new standards and trust in proven data protection
- Financial Services, Payments, Retail, Healthcare, Telecoms, and Government
Problems with Traditional Data Protection

Need to change data structures and validation

Encrypted data is unusable until decrypted

Key management can be a nightmare

Result: multiple, piecemeal solutions that create multiple security gaps
The Harsh Reality

Impossible to protect against every vulnerability –
IT infrastructures will continue to be breached

Impossible to keep all data behind a firewall –
there is no longer the concept of a “perimeter”

The Logical Conclusion:

Data must be protected *pervasively* and *persistently*
XYGATE Data Protection
Industry standard security with no application or database changes

**Format-Preserving Encryption (FPE)**
- Protects structured data while maintaining functional and analytic integrity of the data

**Secure Stateless Tokenization (SST)**
- High-performance tokenization without database management headaches

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Gunther</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>Robertson</td>
</tr>
<tr>
<td>PAN:</td>
<td>4564 1234 1234 1234</td>
</tr>
<tr>
<td>DOB:</td>
<td>20-07-1966</td>
</tr>
<tr>
<td>SSN:</td>
<td>934-72-2356</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First Name:</th>
<th>Uywjlqo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name:</td>
<td>Muwruwwbp</td>
</tr>
<tr>
<td>PAN:</td>
<td>4564 1279 6945 1234</td>
</tr>
<tr>
<td>DOB:</td>
<td>18-06-1972</td>
</tr>
<tr>
<td>SSN:</td>
<td>298-24-2356</td>
</tr>
</tbody>
</table>

Live Data

Traditional Encryption

HPE SecureData FPE/SST
Advantages of HPE SecureData Protection

- Minimal change to data structures and applications

- Protected data behaves correctly in applications and analytics

- Simplified operations via Stateless Key Management

- End-to-end security within a consistent data protection framework

Key Database
## XYGATE Data Protection

Industry standard security with no application or database changes

### Unique NonStop requirements
- Support older legacy applications and newer (often ported) applications
- Support a wide variety of data types including payments and other PII (e.g., SSN, DoB)
- Support NonStop’s OS personalities and executable types
- Conform to NonStop fault tolerance fundamentals
- Be highly performant
- Be secure and integrate with NonStop’s unique security framework

### XDP added functionality to HPE SecureData
- XDP enables implementation with no application changes on NonStop
- XDP adds multiple language support: C, TAL, COBOL and Java
- XDP provides a single API for tokenization and encryption of payments and PII (i.e., single XDP API connecting to both HPE SecureData APIs)
- XDP increases support for NonStop’s OS personalities and executable types
- XDP adds distributed architecture for fault-tolerance and scalability
- XDP adds packaged functionality to support either linking directly to the application or offloading encryption tasks to a dedicated server class process (note: TNS applications can only do the latter)
- XDP adds support for nowaited/non-blocking encryption/tokenization
- XDP adds built-in access control and auditing, as with all XYGATE products
XYGATE Data Protection
Industry standard security with no application or database changes

Can be implemented in two ways

1. As an intercept library requiring absolutely no changes to the application

2. As an SDK that requires a small amount of programming in the customer’s preferred programming language
XYGATE Data Protection
Industry standard security with no application or database changes

Intercept Library option:
• No application changes required
• Overlays system’s I/O procedures with additional functionality to encrypt/tokenize on the fly
• Application sees clear data and is unaware that XDP is being used
• Allows integration with other platforms via HPE SecureData enterprise support
• All sensitive data is protected in the database
• XDP configuration files control behavior (such as which files or fields to access and protect)
XYGATE Data Protection
Industry standard security with no application or database changes

SDK option:

- Lightweight API that can embed directly into NonStop application
- Enables multi-threaded apps to have non-blocking access to Voltage encryption/tokenization
- Minimal code changes
- All sensitive data is protected in the database
- XDP configuration files control behavior (such as which files or fields to access and protect)
- Comprehensive data-centric security approach
XYGATE Data Protection
Industry standard security with no application or database changes

HPE SecureData
• Industry-leading tokenization and encryption solutions
• Format-preserving
• Standards-based
• Multi-platform support
• Runs natively on NonStop
• Support for wide variety of data types
• Stateless key management
• Flexible
XYGATE Data Protection
Industry standard security with no application or database changes

XYGATE Data Protection (XDP)
• Available through HPE NonStop sales
• Optimizes SecureData for NonStop environments
• Enables implementation with no application changes
• Simplifies SecureData implementation
• Enhances SecureData functionality
• Integrates SecureData with NonStop security framework
• Enhances SecureData fault tolerance and scalability
• Provides NonStop database-specific tools for HPE SecureData
XYGATE Data Protection

Industry standard security with no application or database changes

**XYGATE Data Protection (XDP)**

- Enables implementation with no application changes on NonStop
- Adds support for nowaited/non-blocking encryption/tokenization
- Increases support for NonStop’s OS personalities and executable types
- Adds multiple language support: C, TAL, COBOL and Java
- Adds distributed architecture for fault-tolerance, parallelism and scalability
- Adds built-in access control and auditing, as with all XYGATE products
- Adds packaged functionality to support either linking directly to the application or offloading encryption tasks to a dedicated server class process (note: TNS applications can only do the latter)
STAY IN TOUCH WITH US
There is no such thing as too much communication

XYPRO® Technology Corp
Keith Bell

Phone
+44 (0) 778.043.5131

Email / Website
info@xypro.com
www.xypro.com