

CYBERSECURITY INNOVATIONS POWERED BY AI

SecureIT[®]

Full Hard Disk Encryption (FHDE)

Full Hard Disk Encryption (FHDE) is a security solution that encrypts all data stored on a device's hard drive, protecting sensitive information from unauthorized access. It ensures that data remains secure even if the device is lost, stolen, or compromised.

THE CHALLENGE

Top 5 Industry Challenges (If FHDE is NOT Implemented)

- **Data Theft from Lost/Stolen Devices** - Unencrypted laptops, servers, ATMs, and endpoint drives expose sensitive customer and financial data if physically stolen. This can lead to regulatory penalties, customer distrust, and reputational damage.
- **Risk of Offline & Brute-Force Attacks** - Attackers can bypass OS-level security by directly accessing hard drives offline. This increases the probability of ransomware staging, credential extraction, and unauthorized data recovery.
- **Regulatory & Compliance Non-Compliance** - Organizations handling banking, payment, healthcare, or PII data may fail compliance mandates such as RBI, PCI-DSS, DPDP Act, ISO 27001, and GDPR if endpoint encryption is absent.
- **Operational Disruption Due to Manual Security Controls** - Without centralized encryption management, IT teams spend significant time manually securing endpoints and removable media, increasing operational overhead and inconsistency.
- **Data Leakage Through External Drives & Remote Systems** - Without centralized encryption management, IT teams spend significant time manually securing endpoints and removable media, increasing operational overhead and inconsistency.

100%

Disk-Level Data Protection

60%

Reduction in Manual Security Operations

70%

Lower Risk of Data Exposure Incidents

KEY BENEFITS

- ✓ **End-to-End Data Protection**
Encrypts the complete disk (system + data partitions), ensuring data remains unreadable even if the device is physically compromised.
- ✓ **Strong Encryption Security**
Uses enterprise-grade AES-256 and advanced encryption algorithms like Twofish and Serpent to protect sensitive data against sophisticated attacks.
- ✓ **Centralized Security Management**
Enables centralized control for encryption scheduling, policy enforcement, pause/resume operations, and monitoring, reducing administrative effort by up to 50–60%.
- ✓ **Minimal Performance Impact**
Optimized encryption architecture ensures negligible impact on ATM or endpoint performance, enabling seamless business operations.
- ✓ **Business Continuity & Recovery Support**
Supports secure recovery options and HA/DR architecture for uninterrupted operations during system failures or disaster scenarios.



KEY CAPABILITIES

One Unified Agent

01 Encryption & Security Capabilities

Full disk encryption for:

- System partitions
- Data partitions
- External/removable drives

Supports advanced encryption algorithms:

- AES
- AES-256
- Twofish
- Serpent
- AES-Twofish hybrid encryption
- Hardware ID-based encryption keys for stronger device binding

Protection against:

- Offline attacks
- Brute-force attacks
- Unauthorized disk access

02 Centralized Management Capabilities

- Centralized encryption management console
- Policy-based encryption deployment
- Central scheduling and time-based controls
- Remote pause/resume of encryption processes
- Centralized monitoring and reporting
- Offline and centralized encryption deployment options

03 Performance & Operational Capabilities

- Zero/negligible impact on endpoint or ATM performance
- Minimal network bandwidth consumption (~1 kbps)
- Automatic key generation
- Fast deployment architecture
- Platform-independent implementation capability
- Support for enterprise-scale environments (10,000+ ATM/device environments)

04 High Availability & Disaster Recovery

Supports:

- UAT
- Data Center (DC)
- High Availability (HA)
- Disaster Recovery (DR)
- Log shipping from DC to HA for database synchronization
- Passive DR deployment support
- Manual failover configuration support
- Additional scalable storage integration support (10 TB+)

05 Enterprise Infrastructure Capabilities

- Windows Server 2016 & above support
- SQL Server 2017 & above compatibility
- Dedicated LAN/WAN connectivity support
- SMS & Email alert integration
- Enterprise server scalability with HA/DR architecture



ADD-ON AVAILABLE

Need 24/7 coverage? Add Velox MDR.

- India-based SOC analysts, 24x7x365
- 15-minute SLA for critical incidents
- Seamless activation — no new agent required

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Velox Solutions is a Global cybersecurity OEM delivering advanced, AI-powered technologies that strengthen Security Operations and enterprise resilience since 14+ years. Our solutions enable faster threat detection, automated response, and deep visibility across users, endpoints, and infrastructure. Leveraging AI-driven SIEM, SOAR, and behavioural analytics, Velox builds proactive, intelligence-led SOC environments, empowering government and enterprise sectors to stay ahead of evolving cyber threats.

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