

## Maximum Flexibility for Modern IT

Attachmate® Reflection® Standard Suite 2011 is an advanced, next-generation terminal emulator that supports the latest operating environments, including Windows 7 and popular virtualization platforms. This powerful emulator is designed with enhanced security capabilities to protect sensitive data and help you meet regulatory standards such as PCI DSS. It also includes new IT tools for finely-tuned customization control—all within a modern, user-friendly interface. With Reflection Standard Suite 2011, you get the time-saving flexibility you want, plus the robust security you can't do without.

### With Reflection Standard Suite 2011, you can:

- Connect Windows users to applications on IBM Mainframe, IBM AS/400, UNIX, and OpenVMS hosts.
- Support modern operating environments, including Windows 7, Windows Vista, Windows Server 2008, Microsoft App-V, VMware, and Citrix XenApp.
- Enhance data security by masking customer information on live host screens, assigning specific levels of data access to different user groups, and logging credit card data access by employees.
- Use the Reflection PCI/DSS mode to prevent users from connecting to host systems via non-secure protocols and configurations.
- Use Browser UI mode for a familiar, streamlined browser interface.
- Enhance user productivity with customizable tabs, faster-running VBA macros, and support for key Windows 7 features.
- Reduce desktop footprint and lock down desktops by controlling the features you install.
- Automate routine tasks using the familiar VBA platform.
- Create custom applications that integrate Reflection sessions using a .NET embeddable terminal control.
- Run EXTRA!® and Reflection session files, macros, and related HLLAPI applications.
- Protect sensitive data in motion with updated SSL/TLS and SSH security protocols.

### What's New in Reflection Standard Suite 2011?

- *Compatible with Windows 7, Citrix Ready, and VMware Ready logos.*
- Support for modern operating environments, including Windows 7, Windows Vista, Windows Server 2008, Microsoft App-V, VMware, and Citrix XenApp.
- Enhanced security features designed to help you meet evolving PCI DSS requirements.
- Microsoft Ribbon and browser-like user interface modes.
- Support for the SFTP 4.0 standard.
- .NET control for creating custom applications that embed Reflection terminal sessions.
- Integration with Microsoft Office 2010.
- Faster-running VBA macros.
- Updated Attachmate Customization Tool for more flexible configuration options.
- Triple-mouse-click support.



## Product Highlights

### Get Ready for Windows 7 and Office 2010

Reflection Standard Suite 2011 leverages key Windows 7 and Office 2010 security and productivity features. With support for Trusted Locations, User Account Control (UAC), the Microsoft Ribbon user interface, VBA, .NET, and Windows Error Reporting (WER), Reflection makes it easy for you to maximize your Microsoft investment.

### Satisfy the Latest Security Requirements

Reflection Standard Suite 2011 helps you thwart threats to the network and meet important external security requirements. Reflection is validated for FIPS 140-2 and certified for DoD

PKI—the U.S. government's top security standards. This high level of security helps you comply with Sarbanes-Oxley, HIPAA, and Basel III mandates.

What's more, Reflection Standard Suite 2011 is designed to help you meet the latest PCI DSS requirements. New security features allow you to mask data on live host screens, redact data as it is entered, prevent users from connecting to host systems via wireless networks and other non-secured configurations and protocols, log credit card data access by employees, and define specific levels of data access for different user groups.



## TECHNICAL SPECIFICATIONS

### Emulation Types

- IBM System z (Mainframe):
  - 3270 text and graphics terminals and printers
- IBM System i (AS/400):
  - 5250 terminal and printers
- UNIX and OpenVMS:
  - VT terminals (including Japanese)
  - Support for numerous host character sets, including UTF-8 (Unicode)
  - Wyse 50+, Wyse 60, SCO-ANSI, and BBS-ANSI
  - Linux console, AT386, IBM 3151, xterm, and VT-UTF8
  - ReGIS (VT340, VT330, VT241, and VT240) and Tektronix graphics terminal emulation

### Network Protocols

- IBM System z (Mainframe):
  - TN3270E and SSL/TLS
- IBM System i (AS/400):
  - TN5250E and SSL/TLS
- UNIX and OpenVMS:
  - Extensive Telnet options
  - Support for serial connections
- All host types:
  - IPv4 and IPv6 support
  - SOCKS client support

### File Transfer

- IBM System z (Mainframe) and IBM System i (AS/400):
  - IND\$FILE, APVUFILE, DISOSS, SQL data query, LIPI, and batch file transfer
- UNIX and OpenVMS hosts:
  - WRQ Reflection proprietary protocol, FTP, Kermit, Xmodem, and Zmodem
- Reflection Secure FTP Client:
  - NEW - Support for SFTP 4.0 to ensure proper translation of international characters
  - SSH, SSL/TLS, SOCKS, and Kerberos security protocols
  - Extensive firewall support
  - File browsing on z/OS hosts with TSO data sets
  - Save FTP client sessions in Layouts
  - Management of FTP settings via Reflection Administrator\*
  - IPv4 and IPv6 support
  - Change UNIX file permissions with FTP client
  - SFTP downloads resume after interruption
  - Support for a wide variety of FTP servers, including IBM System z, IBM System i, UNIX, NetWare, Unisys, HP 3000, and OpenVMS
  - FTP site wizard
  - Site-to-site transfer between FTP servers
  - Export/import settings in XML format

- Wildcard filters
- Automation tools (script recorder and Microsoft OLE Automation)
- Drag and drop file transfers directly to the desktop

### Security

- IBM System z (Mainframe) and IBM System i (AS/400):
  - NEW - Data masking on 3270 and 5250 host screens
  - NEW - Ability to prevent non-secure host connections
  - Automatic Kerberos sign-on (System i)
  - Express Logon Feature (System z)
- UNIX and OpenVMS:
  - Support for Kerberos
  - Reflection Key Agent accepts SSH keys and certificates for single sign-on authentication
  - SSH encryption:
    - SSH X client launching
    - X11 forwarding
    - Command line SSH utilities (ssh, scp, and sftp)
    - Port forwarding (tunneling) for TCP/IP ports through secure channel
    - Integrated multihop SSH configuration support
    - Password, keyboard interactive, public key (user key and X.509 certificates), and Kerberos authentication
    - Smart card support through PKCS #11 interface
    - SSH key agent
    - Key generation and conversion (RSA-1, RSA, and DSA) utility
    - Easy uploading of users' public keys to SSH servers
    - SSH connection reuse
    - Standard SSH configurations
  - Reflection Kerberos Client:
    - Secure authentication
    - Datastream encryption (DES and 3DES) for Telnet and FTP
    - Support for ticket forwarding and renewal
    - Compatible with Microsoft and Leash32 credentials caches
    - Standard Kerberos configurations
    - Support for Kerberos KDCs using TCP or UDP
- All host types:
  - Support for SSL/TLS and SOCKS
  - FIPS 140-2-validated cryptographic module (Certificate #1027)
  - Adheres to Federal Desktop Core Configuration (FDCC) and United States Government Configuration Baseline (USGCB) security policy requirements
  - PKI support built to meet DoD standards:
    - PKCS #11 support

- U.S. DoD Common Access Card (CAC) support
- Online Certificate Status Protocol (OCSP) support
- Certificate Revocation Lists (CRL)
- Intermediate certificate storage through LDAP
- Reflection Certificate Manager
- Privacy filters
- Trusted Locations

### Productivity

- IBM System z (Mainframe) and IBM System i (AS/400):
  - NEW - Micro Focus Rumba and IBM PComm session file, keyboard, and macro support
  - Spell Check and Auto Correct
  - Recent Typing
  - Auto Expand and Auto Complete
- All host types:
  - Integration with Microsoft Office
  - Application, desktop, and Internet search support
  - Screen History
  - Scratch Pad
  - Advanced cut/copy/paste
  - Keyboard and mouse mapping or remapping
  - NEW - Triple-mouse-click support

### Printing

- IBM System z (Mainframe):
  - 3287 (LU1 and LU3)
- IBM System i (AS/400):
  - 3812, 3912, and 5553 printer emulation
  - Host Print Transform
- UNIX and OpenVMS:
  - Windows or host control
  - Network, local, or print-to-disk
  - ReGIS color graphics support
  - Print logging
  - Fixed pitch TrueType and printer font
  - Serial device to host communications
  - Line-drawing characters

### Programming and Automation

- NEW • Embeddable .NET control
- Native .NET API
- Integration between Reflection .NET API and Microsoft Visual Studio IDE
- VBA support
- Macro recorder for VBA
- Programmatic access to over 400 properties and methods via Reflection API
- Microsoft OLE Automation
- EXTRA! Basic and Reflection Basic macro runtime and editing
- NEW • Support for encrypted EXTRA! Basic macros

## TECHNICAL SPECIFICATIONS (continued)

- HLLAPI, eHLLAPI, and WinHLLAPI (IBM System z and IBM System i only)
- Reflection Command Language (RCL) (UNIX and OpenVMS only)

### User Interface

- IBM System z (Mainframe) and IBM System i (AS/400):
  - Segoe for Attachmate font (for a consistent user experience with Windows 7)
  - Customizable screen sizes for 3270 host applications
  - Word wrap
- UNIX and OpenVMS:
  - Full-screen terminal mode
- All host types:
  - NEW** - Browser UI mode
    - Attachmate implementation of the Microsoft Ribbon user interface
    - Classic mode interface for EXTRA! and Reflection
    - Ribbon customization utility
    - Tabbed or windowed Multiple Document Interface (MDI)
    - Configurable tabs, including colors, renaming, and more
    - Local and online HTML Help
    - Customizable hotspots
    - Graphical keyboard mapping
    - Full-color editing

### Administrative Tools

- Granular UAC support
- Integration with Reflection Administrator:\*
  - Web console for centralized administration of settings files
  - Web-based deployment of settings files and updates
- Windows Error Reporting (WER) support
- Centralized management of settings files using Group Policy
- Application customization tool for settings and installation files (including MSI)
- Support for Windows administration features:
  - Windows Installer (MSI)
  - Active Directory
  - Roaming user and multiple user profiles
  - Group Policy
  - Application self-repair

### International Support

- English, French, German, Spanish, Italian, Japanese, and Brazilian Portuguese languages
- Support for Chinese Simplified/Traditional, Korean, and Japanese code pages (IBM System z and IBM System i only)

- Localized keyboards, displays, and printers
- Support for standard input-method editors

### Operating System Support

- Microsoft Windows 7\*\*
- Microsoft Windows Vista\*\*
- Microsoft Windows XP
- Microsoft Windows Server 2003 Terminal Services
- Microsoft Windows Server 2008 Terminal Services
- Citrix XenApp
- Microsoft App-V
- VMware

\* Reflection Administrator is an optional component.

\*\* 32- and 64-bit editions.

## About Attachmate

Attachmate delivers advanced software for terminal emulation, legacy modernization, managed file transfer, and enterprise fraud management. With our technologies, more than 65,000 businesses worldwide are putting their IT assets to work in new and meaningful ways. [www.attachmate.com](http://www.attachmate.com)



**Corporate Headquarters**  
 1500 Dexter Avenue North  
 Seattle, Washington 98109  
 TEL 206 217 7500  
 800 872 2829  
 FAX 206 217 7515

**EMEA Headquarters**  
 The Netherlands  
 TEL +31 172 50 55 55  
 FAX +31 172 50 55 51

**Asia Pacific Headquarters**  
 Australia  
 TEL +61 3 9825 2300  
 FAX +61 3 9825 2399

**Latin America Headquarters**  
 Mexico  
 TEL +52 55 9178 4970  
 FAX +52 55 5540 4886

WEB [attachmate.com](http://attachmate.com)  
 E-MAIL [info@attachmate.com](mailto:info@attachmate.com)

For regional office information, visit [www.attachmate.com](http://www.attachmate.com).

Provided for informational use only; may be modified at any time without notice.

© 2011 Attachmate Corporation. All Rights Reserved. Attachmate, the Attachmate symbol, and Reflection are registered trademarks of Attachmate Corporation in the USA. Microsoft, Windows 7, and the Compatible with Windows 7 logo are registered trademarks of the Microsoft group of companies. IBM is a registered trademark of International Business Machines Corporation. Citrix is a registered trademark and the Citrix ready logo is a trademark of Citrix Systems, Inc. VMware and VMware Ready are registered trademarks or trademarks of VMware, Inc. in the United States and/or other jurisdictions. All other trademarks, trade names, or company names referenced herein are used for identification only and are the property of their respective owners. Some Attachmate products include software developed by the OpenSSL Project for use in the OpenSSL Toolkit ([www.openssl.org](http://www.openssl.org)). NOTICE: This publication references third-party certifications earned by Attachmate products as the result of formal testing procedures. Such certifications do not confer any warranty of any kind from any party. 08-0034A4web.1011