

Premier Modernization Solution for Mainframe Systems

Attachmate® Verastream® Host Integrator enables the full range of mainframe-based legacy applications to participate in today's service-oriented architectures. Its advanced services approach helps IT organizations extend legacy functionality for use in web, portal, CRM, mobile, contact-center, or web self-service solutions. And it delivers rapid results because you can use existing development skills, familiar IT tools, and proven mainframe investments.

With Verastream Host Integrator, developers can capture data and logic via the screen interface to create reusable services and components (e.g., auto-generated web services or deployable .NET and Java objects). Whether your environment is IBM Mainframe, IBM System i (AS/400), Unix, HP OpenVMS, or HP e3000, Verastream can give your users a new look and feel, without disturbing valuable code or associated business processes.

Product Highlights

Design Environment

With Verastream Host Integrator, you use a simple point-and-click process to abstract legacy functionality in component form. The solution's design environment includes a set of practical integration tools:

Design Tool

Developers can use this graphical tool to encapsulate legacy functions—including data elements and screen navigations—as components. The Design Tool automates the process, regardless of legacy application type, and provides some powerful capabilities:

- **Intelligent screen navigation.** The Design Tool learns how to navigate from one screen to the next and independently determines the best path to a given screen. You can even define escape routes and alternate paths, triggered by legacy-application error conditions.
- **Table representation.** Verastream Host Integrator can organize and present legacy data and logic as database tables. This function allows web programmers to retrieve info from the legacy application using a familiar database interface.
- **Model Import.** Multiple developers can work on a single project or within a single model. This feature is useful for larger projects, allowing them to be broken into pieces or subsets and worked on in part by various individuals. Model import also allows for reuse of code, with the ability to import needed portions of one project into others. This functionality is useful for retaining intricate work and allows a group to build a virtual library of application interactions for use in any project.

Web Builder

In addition to getting auto-generated web services when projects are published, with Verastream Web Builder you can produce and deploy web applications or specific component interfaces as needed. Your project potential ranges from simple rejuvenation to complex integration services:

- **Rejuvenation.** The Web Builder user interface lets you map an unlimited number of modeled screens, as-is, into ASP.NET or JSP/Servlet web pages. For unmodeled screens, you can choose to leave rarely used screens unchanged, while making often-used screens available as web pages. For third-party IDE support, Verastream Host Integrator includes themes with extensible theme support. This feature provides a simple method for controlling the look and feel of dynamic content.
- **Integration.** You can go beyond simple rejuvenation to generating integration projects that encapsulate legacy functionality—spanning multiple screens, applications, and hosts—into a single service. Verastream Web Builder can build component interfaces like JavaBeans and .NET Class

Key Features

- Design Tool with intelligent screen navigation and table representation.
- Robust management and security infrastructure.
- Auto-generated WS-I web services for stateful or stateless needs.
- Web Builder for a range of simple rejuvenation to complex integration.
- Debugging tools including navigator, session monitor, validator, and more.
- Event handlers that eliminate the need for cumbersome client-side programming.
- Session pooling that reduces host workload and unnecessary user navigation.
- Load balancing and failover to ensure seamless scalability, rapid response, and 24/7 reliability.
- Comprehensive, end-to-end security.
- Remote management with administrative console or any SNMP tool.
- Noninvasive approach that minimizes risk and maximizes daily business operations.

Libraries as needed. Compatible with Verastream orchestration services and industry-leading IDEs (such as Eclipse or Microsoft® Visual Studio®), the low-level components can be edited and combined to form high-level components or composite services. Next, Web Builder can generate ASP.NET or JSP/Servlet web applications based on host functionality, rather than host screens. This level of abstraction enables you to create new applications that are independent of the host-application workflow, for real improvement of your business processes.

Verastream-generated rejuvenation and integration projects can be customized using any web/HTML design tool. Verastream Web Builder can also produce WS-I-compliant web services, to accommodate the ever-newer standards of the web services specification. This functionality ensures interoperability for SOA and flexibility for more formal layered-tier architecture approaches.

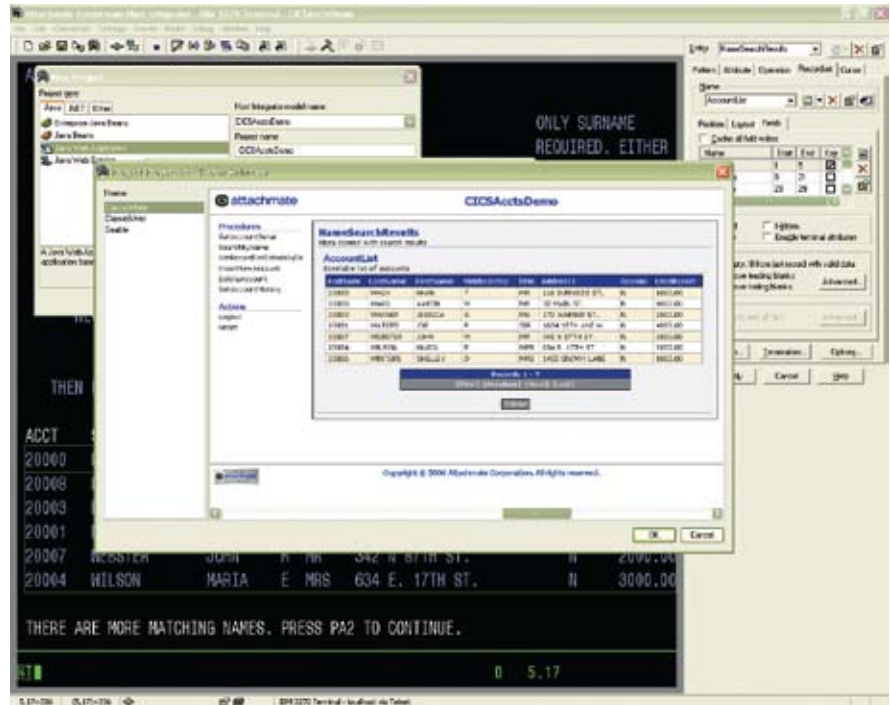
Debugging tools

To help troubleshoot the components you create, Verastream Host Integrator provides a range of debugging tools, which include:

- **Navigator.** Shows a point-and-click graphical depiction of relationships and navigation paths for all specified screens.
- **Session monitor.** Shows active host sessions while client applications are running, so you see the results of user actions.
- **Validator.** Automatically checks key component elements to verify functionality.

Event handlers

Event handlers let you extend the flexibility and power of Verastream Host Integrator. For example, you can create event handlers to change legacy application codes to user-friendly descriptions, convert formatting for currencies or dates, improve error handling, or enable multiple legacy components to work together. Event handlers run on the



Host experts can use the graphical Design Tool to easily create a working model of a host application.

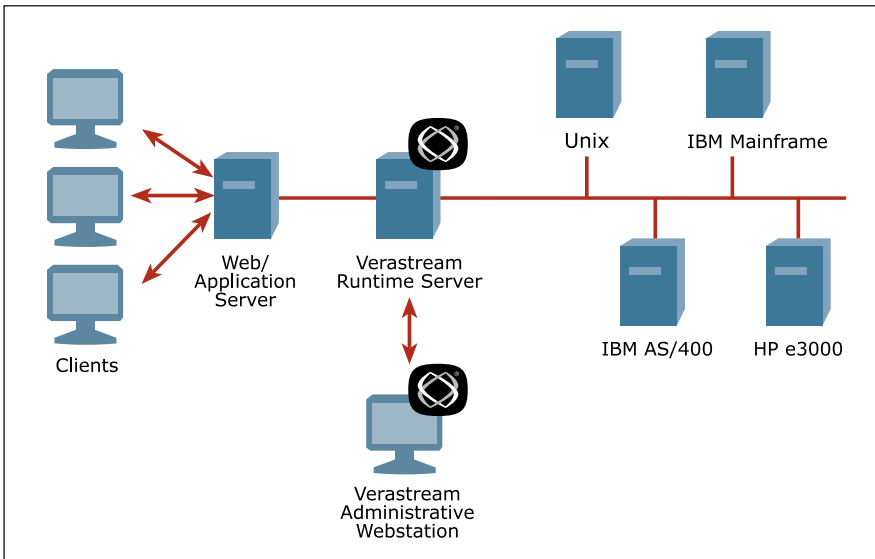
Verastream server and relieve the need for cumbersome client-side programming. Once an event handler is created, it can be reused in multiple legacy components.

Runtime Environment

Verastream Host Integrator offers unprecedented scalability because it runs as a native task on 32-bit as well as 64-bit Unix and Windows® platforms. By running natively, Verastream incurs less operational overhead than server technologies running in an interpreted virtual-machine environment. It also has broad native platform support and the ability to operate transparently in virtualized environments. Other significant runtime features include:

Session pooling

As each transaction with the host is completed, the user session is immediately released back to a session pool for the next user request. This greatly reduces the ratio of sessions to users. And because Verastream sessions are pre-set to specific host screens, you eliminate unnecessary user navigation and reduce host workload.



Verastream load balancing, security, and failover provide a scalable architecture that lets you expand your legacy environment to new applications or business processes.

Load balancing and failover

Verastream scales seamlessly across multiple runtime servers to deliver rapid response and 24/7 reliability. When multiple runtime servers are deployed, the workload is dynamically balanced for optimal performance under high-transaction volumes. If a service outage occurs on any runtime server, the remaining servers automatically provide uninterrupted failover protection.

Security

Verastream offers comprehensive security and can leverage user security settings on local runtime servers or use Lightweight Directory Access Protocol (LDAP). Verastream accommodates end-to-end security through the use of SSL; host-to-server as well as server-to-client communications can be secured. SSL public key cryptography ensures the protection of all data passed between client web applications and the Verastream runtime server. Any host-based security implementations (such as RACF, TopSecret, or ACF-2) remain fully in force. FIPS-validated crypto libraries enhance compliance with data-protection guidelines defined by the U.S. National Institute of Standards and Technology. While a requirement for many government IT systems, these security standards benefit private-sector organizations as well.

Remote management

The Verastream management console provides a rich and configurable console interface to manage the extended server environment. It lets administrators remotely configure, deploy, or monitor services (as well as session pools and security) with fully configurable ability to view and report all pertinent information to third-party SNMP or JMX management tools.

The Verastream Product Line

Verastream Host Integrator is part of the Attachmate Verastream legacy integration suite, a complete range of mainframe, web, and desktop modernization tools. Our solutions deliver the full spectrum of basic and advanced rejuvenation to customized presentation and sophisticated high-performance integration. Verastream-generated services can be mixed, matched,

and reused selectively to extend legacy functionality to new applications or new users. No code changes to legacy applications are required.

By providing a wide range of standard interfaces to host-based data sources, programs, and applications, Verastream solutions enable any client to access any host asset. With Verastream, you can optimize the following applications:

- CICS
- IMS/TM
- CICS 3270 Bridge
- 3270 & 5250
- VT420
- HP700/92 & HP2392A
- Web / HTML
- Desktop (Windows, Java, DOS, web-based)



TECHNICAL SPECIFICATIONS

PLATFORMS AND REQUIREMENTS

Host Interfaces

- IBM 3270, typically used with IBM MVS, S/390, and System z hosts
- IBM 5250, typically used with IBM AS/400 and System i hosts
- VT52, VT102, VT220, VT320, and VT420 terminals, typically used with Unix, Linux, and HP OpenVMS hosts
- HP 2392A and HP 700/92, typically used with
- HP e3000 hosts

Client Interfaces

- WS-I compliant web services
- .NET v2.0 or higher support for CLR-compliant languages like C# or VB.NET
- JavaBeans
- SQL

Verastream Development Kit

- Windows XP Professional
- Windows Vista / 7
- Windows Server Platform

Verastream Runtime Server

- Both 32-bit and 64-bit hardware and OS
- Solaris for SPARC platform
- AIX on PowerPC
- SuSE and Red Hat Enterprise Linux
- Windows Server Environments 2003 and 2008
- Transparent use in virtualized environments

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



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