

# Verastream Host Integrator

Micro Focus Verastream Host Integrator enables users to put mainframe and host applications and data to work in new ways. Modernize access to mainframe applications for integration using RESTful services, Java and .NET interfaces for mobile apps, cloud applications, enterprise and desktop applications. Automate testing of mainframe host applications through integration with a customer's existing testing solutions, tools and processes. Verastream Host Integrator customers use their current development skills and familiar IT tools (including automated testing tools) to isolate business processes and move them beyond the mainframe/host without changing integral code or daily operations.

## Product Highlights

### Design Environment

Verastream Host Integrator (VHI) uses a simple point-and-click process to abstract mainframe and host application functionality in component form. The solution's design environment includes a set of practical integration tools:

- **The Design Tool.** Developers use this graphical tool to encapsulate mainframe and host application functions—including data elements and screen navigations—as components. It maps the host application so designers can decide a course of action:
  - They can create standard services from the captured data and logic. In this scenario, developers can transform services into a number of specific object types (but industry-standard web services for deployment into RESTful or SOA-style implementations are automatically generated).
  - They serve up the application through auto-generated HTML5, by creating custom HTML5 screens and modified workflow, either from scratch or by taking advantage of default themes.
- **Intelligent application mapping.** The Design Tool learns how to navigate from one screen to the next and independently determines the best path to a given screen. Define escape routes and alternate paths, triggered by legacy-application error conditions.
- **Collaborate using Model Import.** Multiple developers can work on a single project or within a single model. This feature enables larger projects to be broken into pieces or subsets. Model Import also enables code reuse, and the import of one project portion into others. This functionality is useful for retaining intricate work and enables a group to build a virtual application interactions library for use in any project.
- **The Web Builder.** Automatically generate terminal screens to be rendered on any device, or modify any number of screens and map them to custom forms—suppressing any information you choose—to create completely unique applications.

The Design Tool provides useful capabilities to capture business logic:

## Quick View

- Design Tool with intelligent screen mapping and navigation
- Auto-generated WS-I web services for stateful or stateless needs
- Automate tasks securely and with centralized control
- Automated terminal-based mainframe application testing
- Event handlers enable creation of any server-side routines
- Session pooling and management reduce host workload, and accelerate queries
- Load balancing and failover for seamless scalability, rapid response, and 24/7 reliability
- Comprehensive, end-to-end security using military-grade crypto libraries
- Remote management with administrative console or any SNMP tool
- Deploy with Containerization
- VMR Log viewer as a standalone install
- Export VMR logs to PDF and HTML

In addition to getting auto-generated web services when projects are published, you can produce and deploy web applications or specific component interfaces as needed. Web Builder expands your project potential from simple rejuvenation and HTML5 access to complex integration services:

- **Integration.** Web Builder can turn defined services into component interfaces such as JavaBeans and .NET Class Libraries. This is in addition to the automatically produced JSON/ REST and SOAP-based web services.

- **Debugging tools.** To quickly tailor the components you create, or track changes to the deployed environment, VHI provides a range of debugging tools, which include:

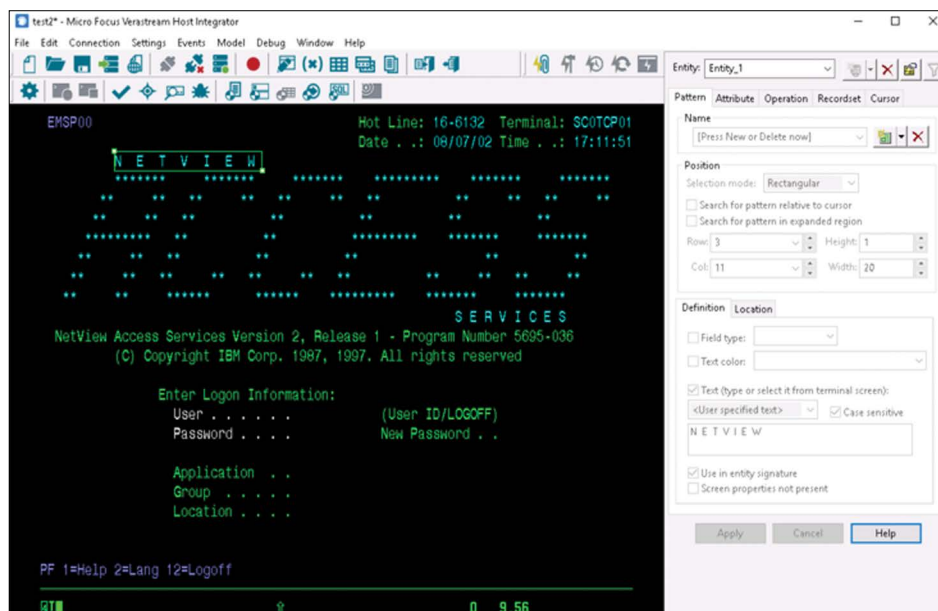
- **Navigator.** Shows a point-and-click graphical depiction of relationships and navigation paths for all specified screens.

- **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.** Extend the flexibility and power of VHI. These server-side custom routines can handle any pre-defined task for your users or client applications. For example, 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 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.

- **VMR Log Viewer.** VHI features a standalone install of the VMR Log Viewer,



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

allowing application administrators to supervise their services without having to seek assistance of system administrators.

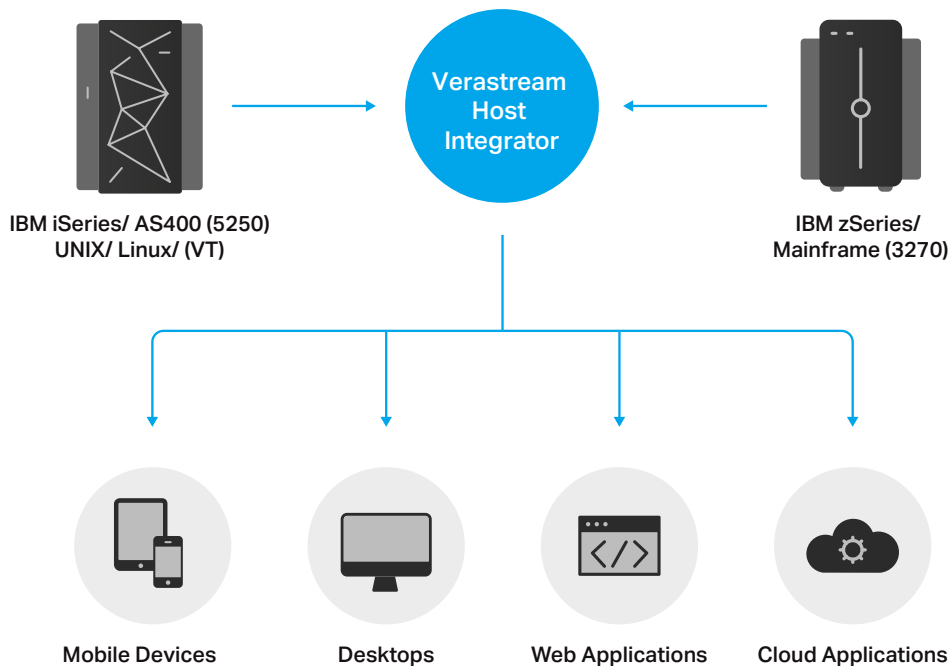
- **Export VMR logs to PDF and HTML.** Allow business users and others to view PDF and HTML VMR logs, without having to access the VHI Design tool to view host screens. This allows business analysts to validate application changes to meet business requirements and regulatory compliance requirements. Additionally, organizations can modify the HTML style of the VMR logs to enhance readability and customization.

- **EXTRA! object API support.** Applications built over EXTRA! object APIs can be migrated to Verastream via support for the EXTRA! COM API (HLLAPI) and the EXTRA! Enterprise Access Objects API. By centralizing those HLLAPI-style applications into VHI, they inherit Verastream's performance, scalability, logging and debugging benefits.

## Runtime Environment

Verastream Host Integrator offers unprecedented scalability because it runs natively as a true 64-bit server application on both UNIX and Windows platforms. By running as 64-bit native on the OS, Verastream Host Integrator combines high performance with low operational overhead. In addition to native server support, Verastream components fully support deployments into the market-leading virtual-machine 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.
- **Load balancing and failover.** Verastream scales seamlessly across multiple runtime servers to deliver rapid response and 24/7



Verastream Host Integrator makes legacy applications available to a range of modern devices without the need to modify your valued business processes.

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 TLS and SSH; host- to-server as well as server-to-client communications can be secured. 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 customizable interface to manage the extended server environment. It enables administrators to 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.
- **Deploy with Containerization.** Deploy the Verastream Host Integrator session server as a Linux container using Docker.

#### Automated Application Testing

Verastream Host Integrator automates testing of terminal-based mainframe applications, through integration with current testing solutions and infrastructure. VHI can use encapsulated application business logic as reusable services to support continuous integration/continuous delivery (CI/CD) practices to respond to ever-growing business demands to deliver applications on time, with minimal bugs.

- **Improve Agility.** Easily automate application testing for the mainframe. Run tests after every build to ensure system performance. Reduce errors and increase the speed and quality of releases.

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- **Increase Quality.** Ensure your mainframe applications are always performing, eliminate downtime, and fix bugs on time to ensure quick and smooth releases.
- **Reduce Costs.** Reduce development time, administrative overhead, maintenance costs, infrastructure, FTEs, and more.
- **Boost Velocity.** Increase the number of tests run.