



Premier Modernization Solution for CICS Applications

Attachmate® Verastream® Bridge Integrator is a native, mainframe-resident adapter that runs in the IBM CICS Transaction Server and delivers high-performance integration of CICS applications. The solution provides easy-to-use tools designed for corporate architects or developers who do not necessarily specialize in the mainframe.

With Verastream Bridge Integrator, you get an advanced method for accessing and using CICS applications. Behind the scenes, Verastream enables interactions with CICS via the IBM Link3270 bridge. This access method is significant because, in its raw format the Link3270 bridge is an effective way to interact with CICS applications.

Product Highlights

Direct CICS Participation in SOA

Because you can expose Verastream-generated services and make them available to other applications, you get a standard way to communicate across systems, inside and outside of CICS. It's done via an HTTP service call that points to a web service in the CICS application, which runs a given operation and returns needed information.

That means any application visible to Verastream can participate in SOA. Composable services pave the way, and anyone familiar with web services can use them. For IT organizations moving to the architecture model of the future, this truly distributed approach—requiring no embedded code—is a step in the right direction.

Solving Real IT Needs

The job of modernizing native business processes on multiple, disparate systems can present some unique complexities to application development. Here are some typical host-integration requirements, paired with Verastream-specific solutions:

- **Deliver mainframe-resident code that works in the IBM architecture, for web-enabling CICS applications.** Verastream Bridge Integrator strictly adheres to the IBM CICS Web Support and CICS Link3270 bridge architecture for seamless integration of existing systems in a CICS application environment.
- **Access CICS 3270 applications that were not written to leverage COMMAREA communications.** Verastream Bridge Integrator allows low-level access to applications based on BMS maps and 3270 Terminal Control Programs that do not provide BMS maps, while still providing enhanced performance over traditional Telnet access.

Key Features

In addition to the tools and capabilities discussed in this data sheet, Verastream Bridge Integrator provides these key features:

- Broad client-platform support for Java and .NET environments.
- Assignable Terminal ID support with CICS-resident control for state management of MRO.
- CICS logic access via 3270 bridge exits.
- Direct access to 3270 applications spanning multiple CICS regions when using IBM Transaction Server v3.x or higher.
- Ability to handle CICS “accum” statements.
- Ability to handle international code pages.
- Interception of CICS 3270 Terminal I/O, bypassing VTAM for faster processing.
- No need for modifications to the CICS 3270 application or generation of BMS Maps.
- Native connector running with CICS Transaction Server and CICS Web Services on OS/390.
- Lightweight requestor/redirector that implements a simple API for stateless or stateful interactions.
- End-to-end security using SSL.

- **Use existing business logic, data systems, and security without modifying CICS 3270 applications.** Verastream Bridge Integrator enables the reuse of host data and business processes from existing CICS applications without changing host code.
- **Create front-end applications that mirror current business processes.** Verastream Bridge Integrator helps you meet your business needs by creating new applications that access the data and logic from CICS applications. As an added bonus, you leverage the speed, security, and reliability of the mainframe.
- **Generate rapid ROI for new applications.** Verastream Bridge Integrator provides an easy-to-use API for making calls directly into the CICS application with mainframe performance. This approach is on par with COMMAREA access, which typically yields a tenfold performance increase over traditional screen-scraping approaches.
- **Manage change-control and performance issues associated with HLLAPI and Telnet.** Verastream Bridge Integrator enables interaction with CICS applications via symbolic names or row/column positions. You get access to the entire CICS application through the native CICS HTTP interface. You do not have to go through VTAM® or create sessions, so you can reduce overhead on the mainframe and enhance throughput.
- **Manage terminal IDs directly in CICS.** Now you can control state management and track application use directly from the CICS environment within Verastream Bridge Integrator. This feature ensures top performance and fault tolerance of MRO interactions.

Because developers need to meet the above requirements without

disrupting existing processes or rewriting host application code, the Verastream method becomes especially compelling.

The Benefits of Access Via Link3270 Bridge

The Link3270 bridge provides a direct and low-overhead method for interaction that has the performance and reliability of COMMAREA access, yet the freedom of generic 3270 access. Unfortunately for many, however, the Link3270 bridge process is too complicated and too limited.

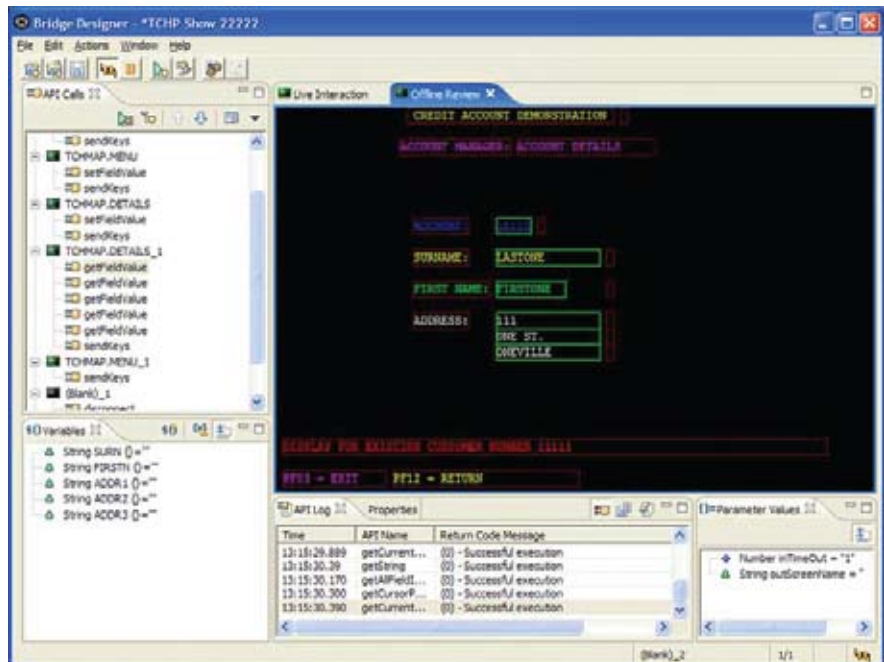
With Verastream Bridge Integrator, the drawbacks associated with CICS application architecture and BMS map dependencies are no longer inhibitors to this valuable access method. To take advantage of the power and richness of the Link3270 bridge access method, Verastream provides some innovative tools and abilities. They are highlighted below.

Bridge designer

With this graphical tool, developers can abstract bridge interactions. Using an interface that mirrors a 3270 session for ease of use, the bridge designer automates the code generation that drives Verastream Bridge Integrator. The bridge designer simplifies the building of application navigation and provides these features:

- Intelligent screen navigation, as through a GUI.
- Drag-and-drop facilities to create variables for inputs and returned outputs.
- Ability to create partial interactions and tie them together.
- Code generation for popular IDEs like Microsoft® Visual Studio® or Eclipse.
- Extensible framework with examples on providing designer support to any language or IDE.
- Navigation Tester within the design facility.

Verastream Bridge Designer



The Verastream bridge designer lets developers abstract bridge interactions using an interface that mirrors a 3270 session for ease of use.

The bridge designer also provides the ability to stack commands into a single unit of work and send them to the host for processing. With Verastream Bridge Integrator, state for activities is passively maintained within CICS. This allows multiple interactions with destination CICS applications to occur with only a single inbound call to CICS and a single return—removing network overhead and latency.

With the bridge designer, the use of this feature is easy. Upon command, the designer looks through your host interactions, suggests how to combine them into larger units of work, generates the streamlined code, and—most important—teaches you how to interact with the host in the fastest and most efficient manner possible.

BMS map, no BMS map, or both

BMS maps let you use map-screen names and field names. Use of host information is as easy as calling the symbolic names of screens and fields. Interaction with the CICS application is based on the use of name/value pairs in the maps instead of row/column positions on the rendered terminal screens. Therefore, movements of fields on host screens do not force changes downstream, and client applications developed against the BMS maps are not affected.

Access to unmapped host fields

Client applications can interact with every field on a screen, not just the mapped fields. Verastream Bridge Integrator allows a client application to access the underlying terminal controls available through the Bridge Exit. This is done natively through the Bridge in CICS, not by invoking an external session as other solutions do.

Name/value pairing

Importation of BMS maps is done dynamically and generation of name/value pairs is based on the underlying

terminal controls for all unmapped fields on the screen. You can then use these unmapped fields by calling the generated name. This not only enables a client application to use name/value pairing, but also allows the client application to work against any screen and any field, whether a full map has been generated or not.

Interaction with screens that never had a map

Even if a CICS application does not use BMS maps, a client application can still take advantage of the performance of the CICS Bridge and use CICS without invoking a middle tier-based screen-scraping infrastructure. When Verastream Bridge Integrator encounters unmapped screens and fields, it dynamically creates a map with generated names for all fields. (Note that Verastream Bridge Integrator can also suppress the use of non-mapped information.) Every field is included in this map and you can then either request data from or post data to specific fields.

Support for interactions using row/column/length commands

Verastream Bridge Integrator is not limited to BMS-only interactions. Instead, it allows CICS interaction through the Verastream Bridge Exit in any way (e.g., row/column/length commands) required by the corresponding CICS application.

Simplified bridge vectors

The application developer does not have to understand and manage bridge vectors. Verastream Bridge Integrator allows the calling application to request just the information it wants via a simple library verb available using a Java class, COM, or .NET object, or as a web service. If only one field is required, the calling application can request one field, either by mapped name, generated name, or row/column/length. When the client application needs all the fields on the screen, Verastream Bridge Integrator supplies a verb to return them. If extended field information, such as attributes, is required, this can also be returned with the data.

CESN Logon and CESF Logoff procedures

Verastream's patent-pending technology allows the use of CESN Logon and CESF Logoff procedures. This is a common authentication method for interactions with CICS applications and a requirement for many security-enabled applications.

A High-Performance Solution

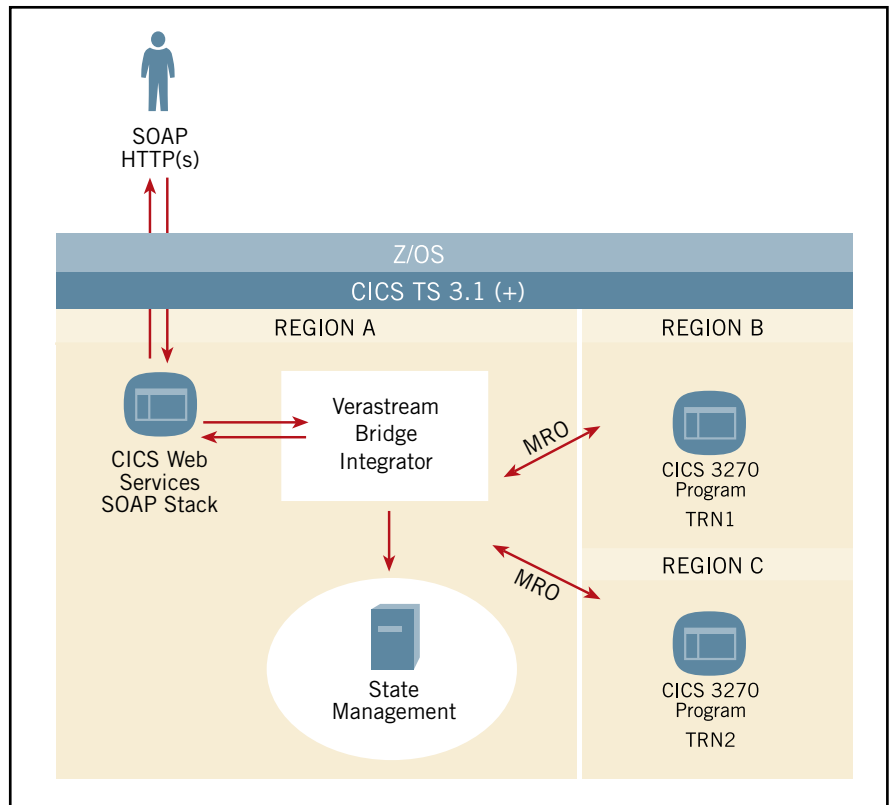
Running as a service on the host, Verastream Bridge Integrator enables you to use CICS-application functionality in composite applications. Using services that reside in the CICS region next to the applications they access, Verastream Bridge Integrator provides screen-like availability.

Unlike traditional screen-based access, interaction is by means of the direct programmatic manipulation of the CICS application business logic that governs screen creation. This method is highly efficient, and with Attachmate's patent-pending technology, provides unparalleled performance.

Consider, for example, a task that requires navigating through ten screens in a CICS 3270 application. Using Verastream Bridge Integrator, the task is completed in 0.1 seconds, compared to 4.57 seconds for screen access methods—a 1,668-percent gain.

The Verastream Product Line

Verastream Bridge Integrator is part of the Attachmate Verastream family, a complete range of integration solutions that extend all types of mainframe and enterprise host functionality. Through its use of industry standards such as web services, J2EE, and .NET, Verastream automatically generates services that can be mixed, matched, and reused. No code changes to existing applications are required, so you can avoid risk while speeding up application integration, application development, and workflow enhancement. Just choose the result you want—basic rejuvenation, customized presentation, or sophisticated high-performance integration—and Verastream can help modernize your legacy assets.



Verastream Bridge Integrator enables interactions with CICS via the IBM Link3270 bridge services that reside in the CICS Transaction Server 2.2, 3.x, or higher.

TECHNICAL SPECIFICATIONS

Applications Optimized by the Family of Verastream Solutions

- CICS
- IMS/TM
- CICS 3270 Bridge
- 3270 & 5250
- VT420

- HP700/92 & HP2392A
- Web / HTML
- Desktop (Windows, Java, DOS, web-based)

**Server Requirements:
Verastream Bridge Integrator**

- IBM Transaction Server v2.2, 3.x, or higher



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