HostBridge Technology

Integrating CICS Applications with…
Anything!

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HOSTBRIDGE™ TECHNOLOGY

What is HostBridge?

- Software that allows CICS transactions to be securely invoked and deliver their output as a standard XML document.
  - Runs under CICS Transaction Server
  - No client or server software involved
  - U.S. Patent Pending process

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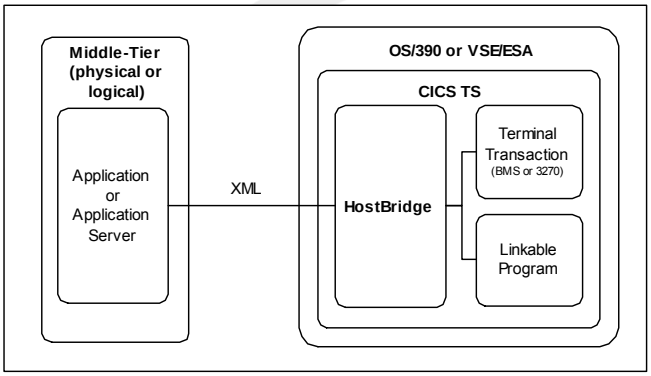
The HostBridge Solution

By eliminating the use of 3270 data streams and screen scraping, HostBridge is highly scalable and extremely resilient.



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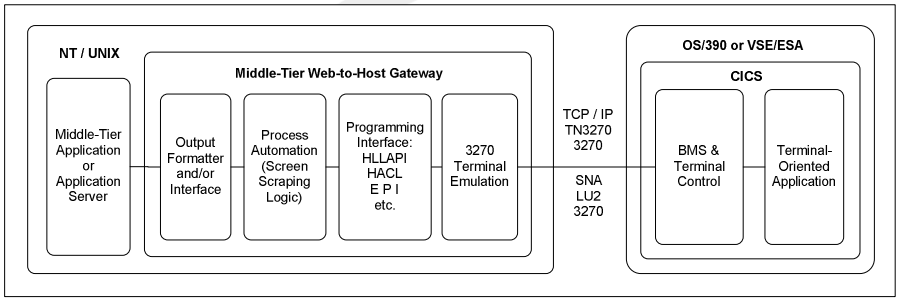
Why was HostBridge developed?

Because traditional Web-to-Host gateways scale poorly and break easily due to their complexity and reliance upon terminal emulation and screen scraping under the covers.



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Why HostBridge is Different

"Enterprise systems are often built on, and incorporate, multiple layers of mature technologies. It is rare to see a solution, such as HostBridge, that *cuts the fat out of years and generations of technology deployments*."

Darcy Fowkes
Aberdeen Group

Aberdeen

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HostBridge exploits CICS TS

- 3270 Bridge
  - Allows HostBridge to intercept the flow of data into, and out of, a terminal-oriented transaction.
  - Allows HostBridge to intercept I/O from a BMS transaction before a 3270 data stream is generated as output or expected as input.
- HTTP Listener
  - Component of CICS Web Support (CWS)
  - Enables an HTTP client to communicate directly with a CICS application without an intermediate gateway or a separate HTTP server.
  - Only required when HTTP is used as transport.

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What is “3270 Bridge Interface”?

- Big point of confusion among CICS customers.
- It IS a collection of services and interfaces within CICS TS.
- It IS NOT the facility that provides HTML access to 3270 applications.
  - This facility was originally referred to as “Web Terminal Transaction Access” (WBTTA)
  - Now referred to as “3270 Web Bridge” or just “Web Bridge”
  - “3270 Bridge” ≠ “3270 Web Bridge” !
- Both HostBridge and the Web Bridge use the Bridge Interface, but for different purposes.
  - Web Bridge provides HTML access to terminal-oriented transactions yielding an alternative human interface.
  - HostBridge provides XML/SOAP access to any CICS application yielding an program interface between the CICS transaction and another program.
- HostBridge is not subject to the limitations of Web Bridge.

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Why use HostBridge?

- To easily integrate CICS applications with other client, server or web-based applications
  - Simple
    - No CICS application changes required
    - XML/SOAP is easy for web, Java or .NET developers to use
    - Non-proprietary; works with existing tools/middleware
  - Elegant
    - No “screen scraping”
    - Open standards (HTTP, XML, SOAP, etc.)
  - Fast
    - Installs in about one hour
    - No per-transaction configuration
    - Very high throughput and performance

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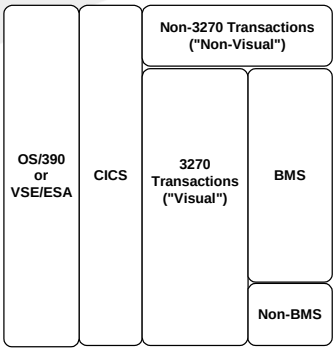
HostBridge Application Support

- HostBridge supports all types of CICS applications:
  - Visual
    - BMS
    - Non-BMS (3270)
  - Non-Visual
    - COMMAREA Programs



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Connection Methods

- Client, server or web-based applications can connect to HostBridge through a variety of means:
  - HTTP
    - CICS Web Support
    - OS/390 HTTP Server
    - WebSphere/390
  - SOAP
  - ECI / Commarea
  - MQ Series
  - TIBCO
- Bottom Line: HostBridge doesn't care!

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HostBridge Complements Other Types of Servers and Applications

- Application Servers
  - IBM WebSphere
  - BEA WebLogic
  - Others
- Integration Servers
  - Microsoft BizTalk
  - WebMethods B2B
  - Novell eXtend
  - Others
- Middleware Architectures
  - MQSeries
  - TIBCO/Rendezvous
  - Others
- Applications
  - ERP
  - CRM
  - Others

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HostBridge Evolution

- HostBridge v1.0 (announced 2/2001) XML-enabled CICS BMS apps.
- Product has expanded considerably based upon customer input:
  - BMS PAGE/ACCUM support (TS 1.3)
  - 3270 (non-BMS) apps
  - COMMAREA programs
  - XML document generation features
  - SOAP support (web services interface)
- Current version is v2.3

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Two Approaches to Web Service Generation

- Code Generation
  - Download COMMAREA program and/or copybook to workstation running proprietary tool
  - Generate web services code
  - Upload generated code to mainframe
  - Compile, install and test generated code
  - Repeat process for each COMMAREA program or whenever COMMAREA changes
- HostBridge (Dynamic/Automated)
  - Run a batch utility to generate web service information from each COMMAREA copybook or program
  - Information stored in a data-only CSECT that can be managed using traditional CICS techniques
  - Everything done on the mainframe; NO code generation

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VSAMDirect

- Retrieve information from any VSAM file directly
- Update VSAM files directly from the web application
- Extension of COMMAREA methodology

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HostBridge Web Services Support

- XML parser
  - Native CICS code
  - No requirements for COBOL or PL/I
- SOAP engine
  - Support for SOAP messages using either HTTP or LINK
  - SOAP support is dynamic, not generated
- WSDL
  - WSDL generated by batch utility for each COMMAREA program

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Summary

- HostBridge can XML-enable existing CICS apps and transform them into web services
  - Support for industry standards
  - No code generation (easier to manage)
  - No proprietary scripting or IDE (lowers development costs; no biases)
  - Native CICS code and no screen-scraping ensures high-performance and data integrity

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