

QUALITY ASSURANCE FOR MAINFRAME APPLICATIONS AND BACK-OFFICE SERVER COMPONENTS USING TCP/IP AND APPC

Compuware Hiperstation for Mainframe Servers is a mainframe application quality assurance solution. With Hiperstation for Mainframe Servers, system and application programmers and quality assurance personnel can streamline testing for mainframe applications and back-office server components of web-based or distributed applications using APPC, or TCP/IP protocols like HTTP, HTTPS, DB2 Connect, IMS Connect, CICS Transaction Gateway and CICS External Call Interface over TCP/IP.

As organizations start to invest in new client/server application implementations such as service-oriented architecture, the need for superior performance, reliability and security are all intensifying the demand for using the IBM zSeries platform as a back-end server for web-based and distributed applications. Hiperstation for Mainframe Servers helps you test quickly, accurately and cost-effectively, and deliver quality applications on time. It allows you to easily:

- build and maintain tests representing application business requirements
 - implement consistent, repeatable, automated regression and performance tests
 - test application changes without the user interface
 - simulate server application responses during a user interface test
 - test changes to the operating system, language environment or subsystems
 - conduct pre-production performance testing for applications and systems software
 - confirm disaster recovery site configuration and performance
 - audit TCP/IP or APPC application activity for appropriate access
 - provide hidden details to help desk and production support personnel
- analyze test results in which all application response differences are identified
- expedite defect resolution
- thoroughly document test results.

EXTENDED TESTING CAPABILITIES

Hiperstation for Mainframe Servers enhances unit, concurrency, integration, migration, capacity and performance testing. With its advanced record, review, replay and reporting functions, you can:

RECORD

Hiperstation for Mainframe Servers records actual TCP/IP and APPC application activity. A global recording facility lets you capture TCP/IP data streams flowing through the z/OS IP stack and APPC connections flowing through the VTAM network on test or production systems. This also includes any TCP/IP or APPC data coming into and going out of the mainframe from other platforms.

REVIEW

Determining whether the expected data is sent and received from various platforms is a major challenge in deploying distributed applications. Hiperstation for Mainframe Servers provides the analysis information that helps you review how data travels to and from the server. TCP/IP and APPC data is formatted into the actual client/server requests or APPC verbs, parameters used by the application as well as actual send-and-receive detail data. A Compuware File-AID interface maps the details into your application program's data maps.

REPLAY

Hiperstation for Mainframe Servers simplifies the testing of mainframe TCP/IP and APPC applications and the back-office components of distributed applications components with its ability to simulate client requests without affecting the distributed front end. It also provides limited support for testing the distributed front end by acting as the server for generic TCP and DB2 Connect applications.

REPORT

Hiperstation for Mainframe Servers helps organize recorded TCP/IP application activity into useful reports that highlight key trends, events and results. These reports are provided in hard copy format, web-based HTML pages or comma-separated values files. Custom REXX reports can also be used to report on both TCP/IP and APPC application test results.

REPEATABLE TESTING

Hiperstation for Mainframe Servers provides functions that help your staff create scripted tests to exercise the application program logic that is critical to the operation of your business. The nature of these test scripts makes them repeatable and, through unattended mode replay functions, makes them fully automatable, allowing you to perform more test iterations in less time.

TESTING FLEXIBILITY

To significantly expand its unattended mode script replay capabilities, Hiperstation for Mainframe Servers uses IBM REXX as a smart scripting language. You can customize TCP/IP and APPC scripts to:

- modify data within a transmission
- read data from an external file and populate pre-recorded test data
- perform conditional processing of data based on live application requests and responses
- create custom reports.

SUPERIOR PERFORMANCE TESTING

Now your staff can utilize the power of Strobe for performance analysis, in addition to the capabilities of Hiperstation for Mainframe Servers for building repeatable and automated tests. Strobe performance statistics provide visibility into the actual performance of the application while it's being tested and help to ensure that the application meets specific performance criteria for production.

APPLICATION AUDITING AND HELP DESK

Additionally, Hiperstation for Mainframe Servers provides Application Auditing and Help Desk functionality. It records TCP/IP and APPC application activity and saves it in a repository. Having access to this

information provides auditors with the ability to review the activity report to identify unauthorized usage. Hiperstation for Mainframe Servers allows the Help Desk to identify and resolve user errors by providing the exact sequence of events leading up to the error. In the event the error resulted in an application failure, this information also assists production support personnel in understanding why the error occurred and provides them with the capability to re-create the production problem.

COMPLETE MAINFRAME QUALITY ASSURANCE TESTING WITH HIPERSTATION

Hiperstation for Mainframe Servers adds TCP/IP and APPC application testing to the comprehensive family of Hiperstation quality assurance software products:

- Hiperstation *for VTAM* tests any mainframe green screen application, including those running in CICS, IMS/DC, IDMS/DC or TSO, and helps your organization measure, manage and minimize the risk of failures in these critical business applications.
- Hiperstation *for WebSphere MQ* tests your mainframe applications and back-office server components of your web-based and distributed applications using WebSphere MQ, and helps your organization measure, manage and minimize the risk of failures in these critical business applications.

THE POWER OF INTEGRATION

Compuware is in a unique position to help you maximize the value of your IT investment. To provide system and application programmers and quality assurance personnel with a complete solution for managing and deploying zSeries applications and server components, Compuware continually enhances the integration between its products. Not only do Compuware's Hiperstation, Xpediter, Abend-AID, Strobe and File-AID products work with each other, but integrations also exist between our zSeries and distributed products such as Vantage and Changepoint. These integrations result in more powerful functionality, a reduction in the learning curve and increased user efficiency.

To learn more about Compuware Hiperstation, visit: compuware.com/hiperstation

Compuware Corporation, the technology performance company, provides software, experts and best practices to ensure technology works well and delivers value. Compuware solutions make the world's most important technologies perform at their best for leading organizations worldwide, including 46 of the top 50 Fortune 500 companies and 12 of the top 20 most visited U.S. web sites. Learn more at: compuware.com.

Compuware Corporation World Headquarters • One Campus Martius • Detroit, MI 48226-5099

© 2011 Compuware Corporation

Compuware products and services listed within are trademarks or registered trademarks of Compuware Corporation. Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

04.11

