

Is your network ready for today's  
enterprise business challenges?



## Application Workload Modeler for z/OS and Linux on zSeries



- **Are your TCP/IP or SNA networks meeting your committed Service Level Agreements?**
- **Will consolidating functions onto zSeries improve response time and performance?**
- **What's the real cause of the congestion you are experiencing: the application or the network?**
- **What is the most cost effective way to analyze your network performance before and after network infrastructure changes?**
- **When migrating from 374X NCP's, how can you analyze the implications of protocol, connectivity, and security decisions?**
- **What are the performance implications of migrating from ESCON to OSA-Express, SNA to Enterprise Extender, or implementing SSL?**

**If these questions and concerns are on the minds of your network administrators, look into the benefits and features of:**

### IBM Application Workload Modeler for z/OS

#### Perform Network Analysis & Tuning

Application Workload Modeler (AWM) gives you the ability to measure and tune the performance of networks and applications in a client/server, multi-protocol environment. With AWM, you can more accurately plan the development and deployment of applications in your network, and determine where upgrades may be required in servers or network infrastructure to meet this need.

#### Control Multiple Nodes from a Single Point:

In both modes of operation, Application Workload Modeler allows you to simulate large numbers of clients and stress workload levels. This can be done from a single host or from several hosts when larger workload levels are required. When several hosts are used, a single AWM instance is designated as the controller, coordinating the set-up and execution of the test, as well as gathering results for all AWM client and server instances involved in the test.

#### Cross Platform Support Provides Flexibility:

Application Workload Modeler is supported on z/OS, OS/390 (V2R10), Linux on zSeries, and on Linux. Tests can involve AWM instances on any combination of supported platforms, allowing for Linux clients at the network edge, for example, to interact with any AWM server instances on host systems within the network. In Application Client Mode the server application can be on any platform. Only the AWM client must be on a platform supported by AWM. The control point can verify and set parameters, execute test runs, and display statistical results for all instances on any of the supported platforms

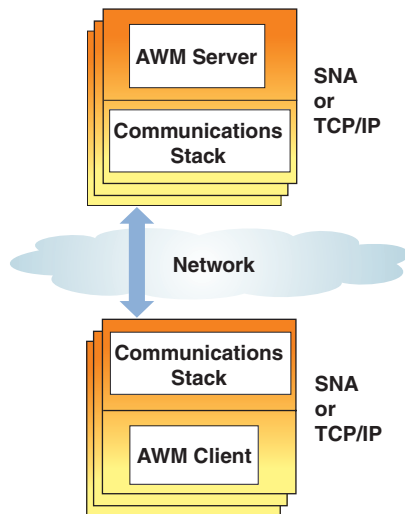
#### Generate Comprehensive Analysis Data:

Application Workload Modeler provides detailed statistics describing the throughput levels and response times measured for each test, including response time variance and standard deviation metrics. These statistics can be viewed during the test and in final reports generated when the tests are complete. Reports include statistics for each instance of AWM involved in the test, as well as aggregate reports for the overall test.

#### Application Workload Modeler for z/OS R1 includes:

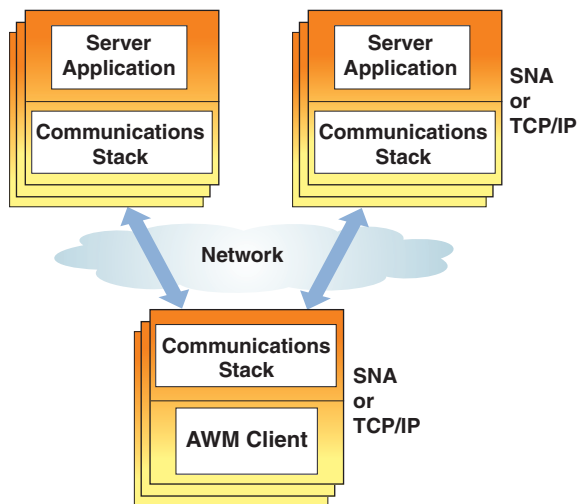
- An SMP/E installable tape with Application Workload Modeler for z/OS code
- A CD containing the Application Workload Modeler for Linux on zSeries code and the Application Workload Modeler for Linux code.

## Two Modes of Operation.



**Figure 1. Client Server Mode**

Client/Server mode allows you to evaluate the performance of your communications stack (such as TCP/IP or SNA) and your network infrastructure by modeling the behavior of an application and generating the associated network traffic between AWM instances on both the client and server. The real application need not be installed on either end.



**Figure 2. Application Client Mode**

Application Client Mode allows you to measure the overall end-to-end performance of a well-known TCP/IP application server such as FTP, Web, or TN3270. By using Application Workload Modeler as a client to an existing application server, AWM will generate large volumes of real traffic, as specified by you, to the application server and measure performance based on throughput and response times for the workload.

## Use IBM Application Workload Modeler to:

- Allocate existing system resources more efficiently by modeling, generating traffic, and evaluating the network performance of existing workloads

- Effectively plan additional system resources by analyzing performance impacts of new functions and/or increased capacity on your systems

- Benchmark existing workloads, allowing you to measure the impact of new hardware and/or new software before and after implementation

### Comprehensive Support:

*The protocols, API's, and clients supported by AWM give you the flexibility to use this tool for a wide range of modeled as well as real applications.*

*Driving workloads to a simulated application server will allow you to analyze network impact before a new application is developed or deployed.*

*Driving workloads to a real application server provides actual performance data for your network and the application.*

### AWM Network Protocol Support:

TCP/IP (IPv4 & IPv6), SNA (z/OS or OS/390)

### AWM Network Protocol API Support:

TCP/IP (IPv4 & IPv6),

TCP and UDP Sockets (SSL or non-SSL).

#### SSL support includes:

- ✓ GSKIT V5.0 (also known as V5e)

- ✓ OpenSSL 0.9.6b (Linux only)

#### Multicast APIs:

- ✓ SNA (z/OS or OS/390 only)

- ✓ VTAM RAPI

- ✓ VTAM APPCCMD

- ✓ VTAM HPDT APPCCMD

### AWM can simulate these TCP/IP clients:

- ✓ TN3270

- ✓ TN3270 or TN3270E

- ✓ Non-SSL, OpenSSL and GSKit SSL

- ✓ Express Logon

- ✓ HTTP

- ✓ HTTPS (Open SSL and GSKit)

- ✓ CICS sockets

- ✓ DNS

- ✓ DHCP

- ✓ FTP

- ✓ SAP ICLI

- ✓ SMTP

## Maximize Effectiveness with Consulting and Services:

IBM offers a variety of prepackaged offerings to assist you:

The **Try and Buy** offering allows the IBM Services team to install, apply, and interpret AWM results for you on your system prior to you making a purchase decision.

The **Installation, Configuration, Training, and Mentoring** offering is recommended upon purchasing AWM to assist with initial use of the product to resolve your immediate performance and capacity planning concerns and train your personnel for future needs.

The **Complex Modeling** offering is intended to assist in complex modeling, performance and capacity planning for Enterprise Extender, TN3270, or other complex modeling projects. You may utilize the skills of the IBM team, using your own or IBM system resources, prior to, or after making an AWM purchase.

For more information, see your IBM Representative or visit our Services Website at:

[www.ibm.com/websphere/developer/services](http://www.ibm.com/websphere/developer/services)

## Software Requirements:

All prerequisites and corequisites for these products apply.

The products listed here are supported only while service is available for those products.

### **AWM for z/OS R1 requires one of the following:**

z/OS (5694-A01) R1, or later, with Comm. Server for z/OS

OS/390 (5647-A01) V2 R10 with Comm. Server for OS/390

### **Application Workload Modeler for Linux on zSeries R1 requires one of the following:**

Red Hat Linux for S/390, or later

SuSe Linux Enterprise Server 7 for S/390 and zSeries, or later

64 bit version required for SAP ICL client simulation

### **AWM for Linux R1 requires one of the following:**

Red Hat 7.1, 7.2, or 7.3

SuSe 7.3

## Hardware Requirements:

Application Workload Modeler for z/OS runs on any hardware that meets the minimum specifications of the supported operating system environment.

## For More Information:

See your IBM client representative or call IBM DIRECT at

1-800-IBM-CALL in the US and Canada.

To learn more about this product, please visit our website at:

[www.ibm.com/software/network/awm/index.html](http://www.ibm.com/software/network/awm/index.html)



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