

Melissa Iori
Ronald Dartey
Doug Rohde

Marist Grads and Undergrads Working with IBM Wave for z/VM

In addition to an overview of IBM Wave (described below), we will also speak about the Marist students actively working on and contributing to the IBM Wave project as interns and fulltime employees. We will also highlight the use of IBM Wave in Marist Colleges' Enterprise Computing Research Laboratory, where student researchers rely on Wave to perform day to day z/VM guest management operations and tasks, without having the experience and expertise of a traditional z/VM Systems Programmer.

Abstract: IBM Wave – Managing z/VM Virtual Guests & Linux Server Farms

For decades, z/VM has been a leading hypervisor in server virtualization, allowing vast scalability and the ability to host thousands of virtual servers on minimal amounts of hardware. However, with this high level of virtualization and abstraction comes the problem of managing system resources and guests via the default command line interface within z/VM. For many system programmers, there is an inherent desire to be able to see all of the servers running on the hypervisor and perform administrative operations on multiple Guests at once via a simple, easy to use, intuitive graphical interface as opposed to the current command by command approach. IBM Wave provides this solution through Intelligent Visualization, Unique Automation, and User & Project Management.

Intelligent Visualization:

IBM Wave for z/VM provides solutions to the System Programmer's need to dynamically view resources through intelligent visualization. Through IBM Wave's intuitive graphical user interface the system programmer can view various aspects of a z/VM System. The visualization provides a bird's eye-view of all CEC's associated with various z/VM systems within the organization and indicates if the systems are stand-alone, clustered or in a Shared Directory environment. The visualization extends into management by allowing the System Programmer the ability to view guests, networks, storage devices and logs containing task submissions.

Unique Automation:

Along with the ability to view the z/VM system and its resources comes the ability to automate day-to-day processes. IBM Wave's unique automation feature set allows the system programmer to save time on basic operations and focus on more pressing issues for the organization. Running REXX EXEC's, Linux scripts, automated Linux installations and new layers of virtual network segmenting features are a few of the many automation features that IBM Wave provides.

User & Project Management:

The User & Project Management features of IBM Wave complement z/VM's prowess as an enterprise hypervisor by providing the ability to use z/VM with a brand new outlook. The command-line skills

required for z/VM are minimized and the System Programmer can organize guests by assigning them to projects and assign those projects to specific employee's within the organization. With Scopes and Permissions the System Programmer has full authority over what tasks different employee's can run and what they can or cannot view.

Through its features of Intelligent Visualization, Unique Automation and User & Project Management Wave provides a new set of features to the System Z hypervisor and simplifies existing administration capabilities. IBM Wave will only re-enforce z/VM as the primary enterprise hypervisor of choice.

IBM Wave Architecture

Client

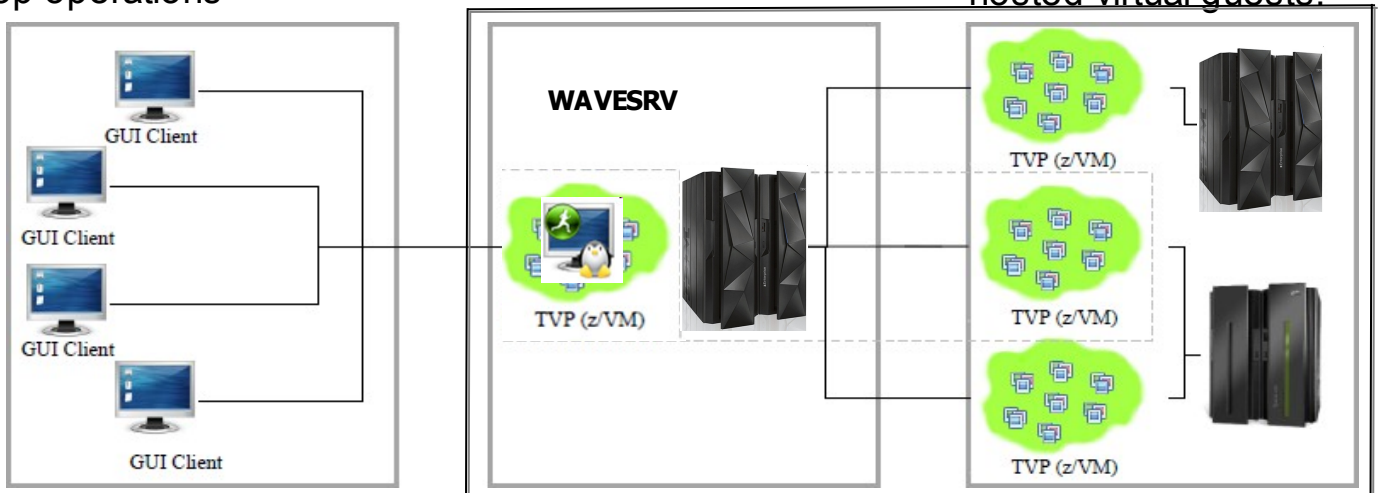
The Client can run on Microsoft® Windows®, running Java™ 1.7 Graphic interpretation of the TVP through communication with WAVESRV using Point-and-Click and Drag-and-Drop operations

WAVESRV

This server (virtual or physical) hosts the application database and Background Task Scheduler
One BTS server can manage many Target Virtualization Platforms.

TVP

The Target Virtualization Platform (TVP) represents the hypervisor which hosts the virtual guests that are managed. The BTS utilizes the TVP API to query and perform changes to the TVP and hosted virtual guests.



Demo

At the conclusion of our presentation, we will also have a live demo in which we use IBM Wave to manage, oversee, and perform basic actions on zVM Linux guests. Such management may include guest activation, deactivation, resource monitoring, and guest cloning.