

# BUSINESS CASE FOR LINUX ON Z SYSTEMS

In the past, companies compiled total cost of ownership (TCO) for each business application. TCO includes sunk costs (costs spent in prior years). Now, companies are moving to Total Cost of Acquisition (TCA), which represents the cash flow for today, as well as future year's expenditures.

When looking at TCAs for virtualizing a large number of servers, the key elements include:

- Capital costs - hardware and software licenses
- Annual hardware and software maintenance
- Facilities power, cooling and floor space
- Systems administration costs – the people

The example below shows a 5-year TCA for IBM's WebSphere Network Deployment at a Health Care Insurance company. In this case, 435 WebSphere ND virtual servers were deployed under VMware on 43 CISCO B200-M4 servers.

Not-so-hidden costs include the WebSphere ND software licensing, which in this case added up to over \$13 million, in the 5-year business case. Smaller, but still visible, is the maintenance for hardware and software for the VMware, Linux operating system and system management software. Then the hidden, or often not included in the business case, is the facilities and people costs. Are Facilities and people costs sunk costs? No, especially if there is another platform that can significantly reduce these expenditures.

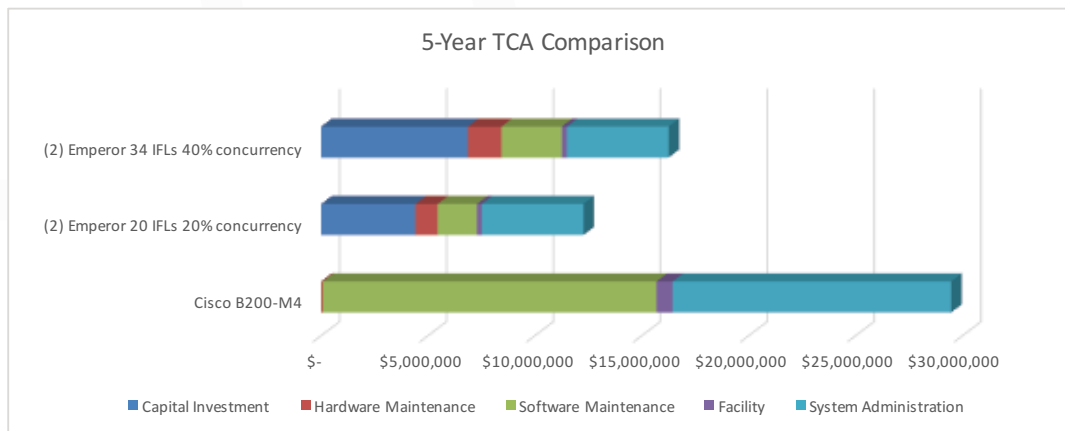
IBM provides an extrapolation tool that uses, as input, actual utilization statistics from the WebSphere servers and projects needed capacity on IBM z Systems. Capturing 435 server statistics may be overwhelming, so the tool has the ability to apply ballpark scenarios. In the example below, the 435 servers were sized to absorb peak concurrency from 435 virtual servers assuming...

- 87 servers or 20% peak concurrency
- 174 servers or 40% peak concurrency

In this way, a business case is created to determine if a positive savings can be made. See what was determined in savings over the 5-year period for the two scenarios.

- \$17 million savings for 20% peak concurrency
- \$13 million savings for 40% peak concurrency

This should get anyone's attention to go to the next step... either refining the business case with actual server statistics, moving forward with a proof of technology project or following through with the purchase and implementation.



Other costs, which were not considered, that could impact the business case such as the cost of CISCO server refresh, including hardware costs, and maybe more importantly, the people costs in the never-ending project of performing the hardware refresh. Consider this – for the Linux on z Systems, the hardware refresh takes place in one weekend for all 435 servers – immediately, all servers are running on the latest technology. There are endless testimonies, over decades, that this hardware refresh process works – just reach out to the traditional mainframe operating systems teams. That's something to help you sleep at night.

## Do you want to hear more?

What's presented in this brief is just a sampling of the total story. Both Linux on z Systems and the LinuxONE server (a z Systems running only Linux virtualized servers) bring an exceptional TCO and TCA, highest RAS in the industry, and enormous processor scalability.

To learn more, call us toll-free at 866.490.MAIN(6246) or speak with your Mainline Account Executive.

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