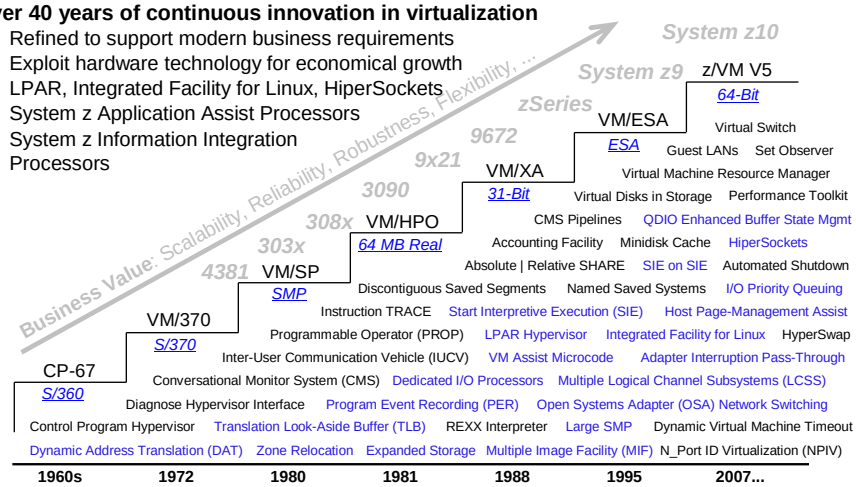
Erratum

IBM Systems
Simplify your IT.

IBM System z Virtualization Genetics

Over 40 years of continuous innovation in virtualization

- Refined to support modern business requirements
- Exploit hardware technology for economical growth
- LPAR, Integrated Facility for Linux, HiperSockets
- System z Application Assist Processors
- System z Information Integration Processors



IBM System z – a comprehensive and sophisticated suite of virtualization function

IBM Systems
Simplify your IT.

Dynamic virtual processor management

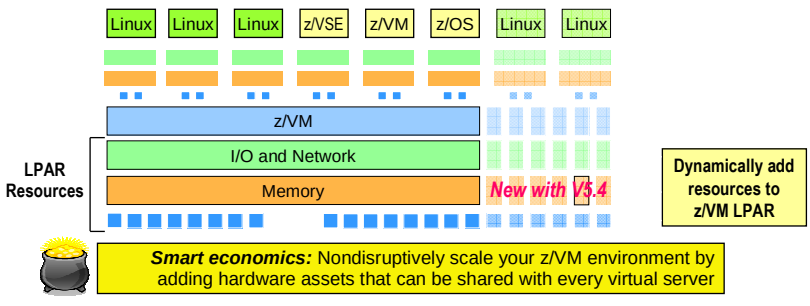
- **Allows z/VM guests to expand or contract the number of virtual processors it uses without affecting the overall CPU capacity it is allowed to consume**
  - Guests can dynamically optimize their multiprogramming capacity based on workload demand
  - Starting and stopping virtual CPUs does not affect the total amount of CPU capacity the guest is authorized to use
  - Linux CPU hotplug (cpuplugd) daemon starts and stops virtual CPUs based on Linux Load Average value.
    - The cpuplugd daemon is available with SLES10 SP2 and IBM is working with it Linux distributor partners to provide this function in other Linux on System z distributions.
- **Helps enhance the overall efficiency of a Linux-on-z/VM environment**

CPU 0 SHARE=25	CPU 1 SHARE=25	CPU 2 SHARE=25	CPU 3 SHARE=25	Reduced Need for Multiprogramming	CPU 0 SHARE=50	CPU 1 SHARE=50	CPU 2 *Stopped*	CPU 3 *Stopped*
Guest SHARE = 100				Stop 2 CPUs	Guest SHARE = 100			
CPU 0 SHARE=50	CPU 1 SHARE=50	CPU 2 *Stopped*	CPU 3 *Stopped*	Increased Need for Multiprogramming	CPU 0 SHARE=25	CPU 1 SHARE=25	CPU 2 SHARE=25	CPU 3 SHARE=25
Guest SHARE = 100				Start 2 CPUs	Guest SHARE = 100			

Note: Overall CPU capacity for a guest system can be dynamically adjusted using the SHARE setting

Dynamic memory upgrade

- z/VM V5.4 exploits dynamic memory reconfiguration
- Users can nondisruptively add memory to a z/VM *LPAR*
  - Additional memory can come from: *a)* unused available memory, *b)* concurrent memory upgrade, or *c)* an LPAR that can release memory
  - Systems can now be configured to reduce the need to re-IPL z/VM
  - Memory *cannot* be nondisruptively removed from a z/VM LPAR
- z/VM virtualizes this hardware support for *guest machines*
  - Currently, only z/OS and z/VM support this capability in a virtual machine environment



Smart economics: Nondisruptively scale your z/VM environment by adding hardware assets that can be shared with every virtual server