

# IBM z/VM Express System Install Conceptual Overview

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# z/VM ESI

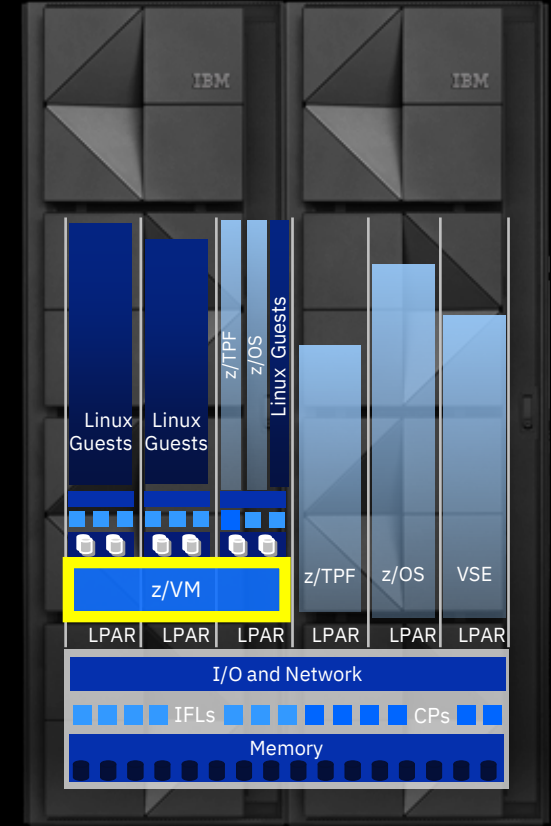
Express System Install

*The world's finest pocket-sized mainframe hybrid cloud*



# What is IBM z/VM?

- IBM's premier, enterprise-class, flagship virtualization hypervisor
- Capable of supporting more virtual servers than any other platform
- Known situations where Linux performance under z/VM exceeds native LPAR



Arguably the most capable and functionally rich hypervisor

- Legendary stability and qualities of service
- The only supported hypervisor for Oracle databases on z/Architecture
- The first choice of the Red Hat OpenShift development team for s390x



Arguably the most capable and functionally rich hipervisor



# What is z/VM ESI?

# E. pluribus Unum



Standardize z/VM software bundle based on IBM expertise and good practices



RACF/VM

*Identity, access, and security management*



z/VM LDAP

*OpenShift and Linux security management*



Performance Toolkit

*Performance management*



DirMaint

*Directory configuration management*



Operations manager

*Monitoring, automation, and log management*

Red Hat Installation Support System



Ansible playbooks to create supporting infrastructure



Ansible playbooks to install OpenShift Container Platform

*Speedy,*

*secure...*

*Ready;*

Simplified deployment  
and setup of Red Hat  
OpenShift Container  
Platform or IBM Cloud  
Infrastructure Centre



Hybrid cloud platform

Rapid deployment and  
time to value

z/VM ESI value-added packaging

Enterprise grade  
virtualization

IBM z/VM

Legendary hardware

IBM Z or LinuxONE hardware

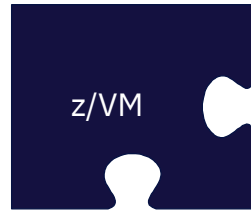


## The z/VM ESI stack





Similar to how  
MVS/ESA plus  
common features  
were bundled to  
create OS/390.



- Obtained from ShoopZ

*Not a special build*



- RACF/VM

*Identity, access, and  
security management*

- z/VM LDAP

*OpenShift and Linux  
security management*

- Performance Toolkit

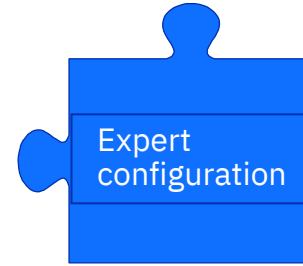
*Performance  
management*

- DirMaint

*User & disk configuration  
management*

- Operations manager

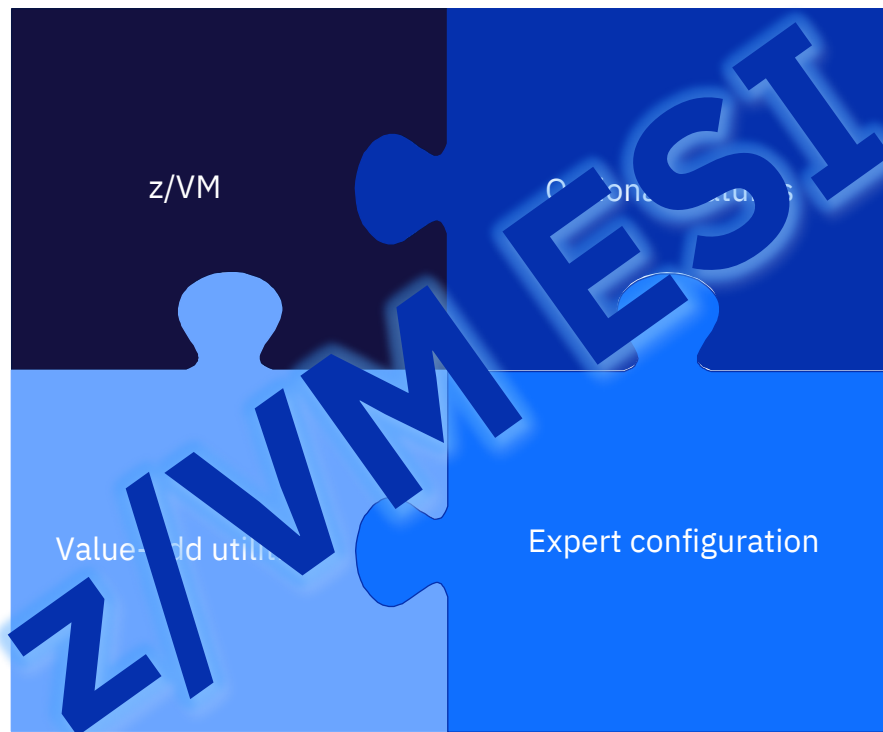
*Monitoring, automation,  
and log management*



- Very fast processor speeds with large cache structures
- I/O acceleration co-processors



- Shared hardware can translate into dramatic reduction in per-core software licensing costs



## What is z/VM ESI

# What brought this project to be?

**Customers want  
systems ready  
on day one.**



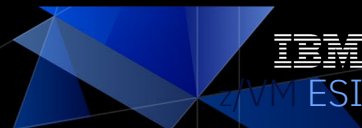
“

Outsourcing  
has changed  
everything  
for us



“

**I rely on IBM  
to provide  
expertise**



**Technical staff  
are already  
overcommitted.**



“

I don't have  
time to sift  
through  
choices





“

**Fast and easy  
are what my  
executives  
want to buy**



- Information technology is moving so fast that customers struggle to simply remain knowledgeable of the I/T landscape.
- Customers want product manufacturers to provide solutions which are developed and pre-configured using the expertise of the manufacturer.
- Both management and technical staff have an expectation that any modern product will arrive “fully assembled”. The expectation is even higher for a premium product like IBM Z.

Customer behavior tells us everything we need to know

- Technical staff are not afraid to learn new technologies and solutions, but do not want to be "thrown into the deep end of the pool on day one".
- We see this principle perfectly illustrated in the way that Linux distributions have evolved.
- From a high-level perspective, deployment of a Linux system **in the past** was very similar to the deployment of a z/VM system
  - Documentation guides the user through a lengthy series of steps, some of them covering topics which can easily be overwhelming.
  - Security is an add-on. The system is not hardened.
  - Tools and utilities to make use easier are not included in the base.

Customer behavior tells us everything we need to know

# The z/VM ESI team

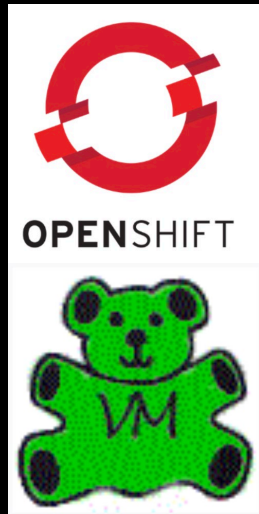
## We are a skunkworks project

Skunkworks project, a project typically developed by a small and loosely structured group of people who research and develop a project primarily for the sake of innovation



## z/VM Express System Install ( z/VM ESI )

“z/VM on-a-stick”



*The world's finest pocket-sized mainframe private cloud*



- Bring z/VM to the **forefront** of both customers and IBMers minds alike.
- Make deployment of a new z/VM system so quick and easy, that IBM Z or LinuxONE **stand out as the obvious choice** against competing solutions.
- To dispel and eradicate **incorrect notions** about z/VM:
  - Too complex to setup
    - Too many choices/options
    - Necessary components require manual setup and cost extra (ESM, PTK, etc)
  - Hard to learn
  - Too expensive versus perceived value
    - Time to operational readiness

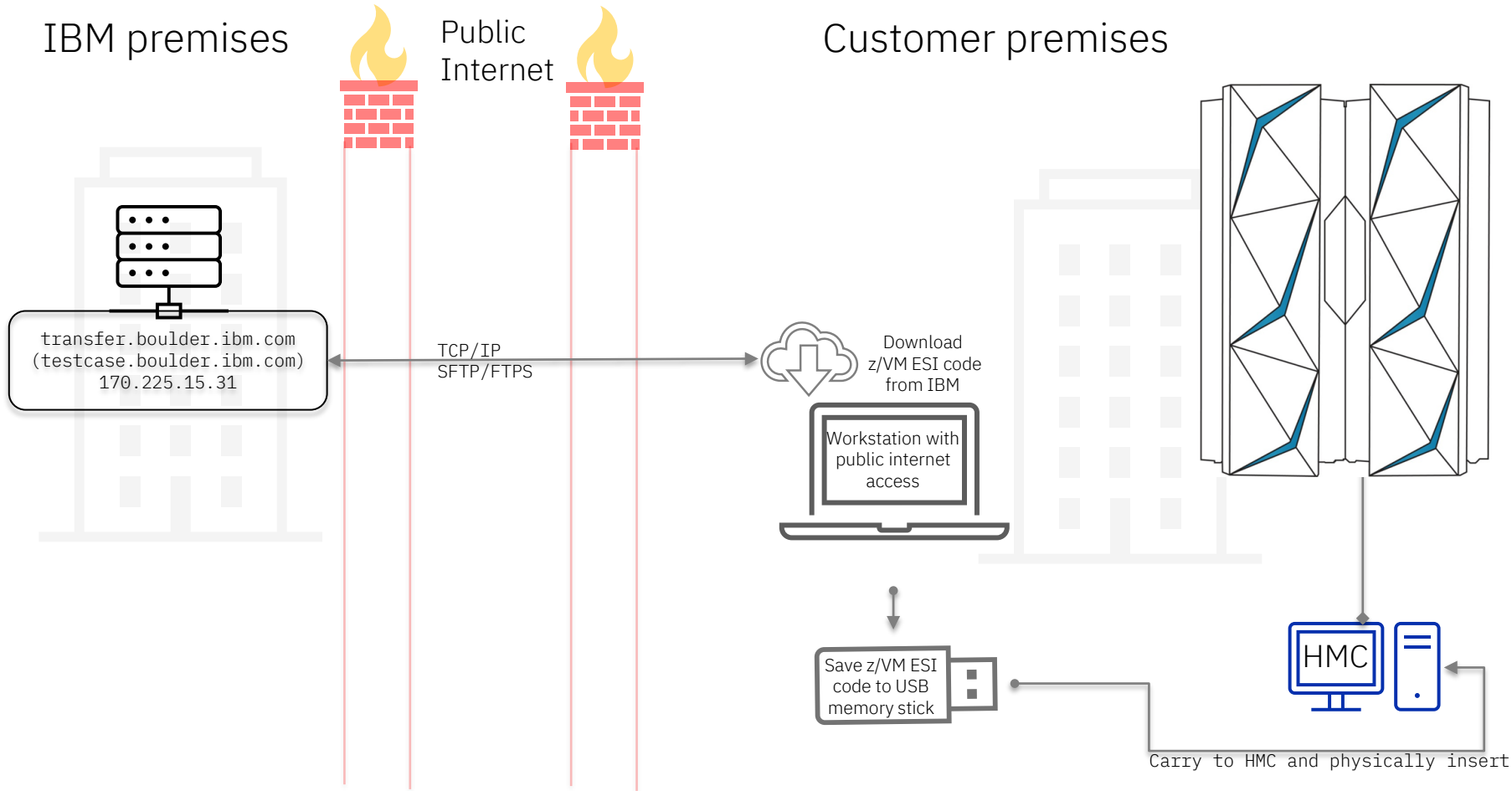
## Team mission

# Methodologies

IBM premises

Public  
Internet

Customer premises



## Graphical overview – use of USB memory stick



# IBM premises

# Public Internet

# Customer premises

IBM customer transfer server  
transfer.boulder.ibm.com  
(testcase.boulder.ibm.com)  
170.225.15.31

TCP/IP  
SFTP/FTPS

1

Download code  
from IBM to  
workstation

Workstation with  
access to IBM  
customer transfer  
server

FTP server  
accessible  
from HMC

TCP/IP  
SFTP/FTPS

HMC

2

Upload code  
to FTP server

## Graphical overview – use of FTP server for loading from HMC

Ask your IBM sales representative  
to contact us

**Ernest Horn/Poughkeepsie/IBM**

*WW LinuxONE client success manager*

**Stephanie Rivero/Endicott/IBM**

*z/VM product offering manager*

Where to learn more



