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**IBM System z**  
**July 2012**

# **Cloud Computing with xCAT on z/VM**

Frequently Asked Questions

Worldwide



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## xCAT Overview & Positioning

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### Question:

What is xCAT?

### Answer:

xCAT stands for **Extreme Cloud Administration Toolkit**. This toolkit is:

- A tool to manage, provision, and monitor physical and virtual machines on IBM System x, p, and z
- Built to scale thousands of nodes with distributed architecture
- Easy to use
- Open sourced in 2007 and licensed as EPL (Eclipse Public License)
- Used by NASA, University of Toronto, IBM, Adaptive Computing, and Los Alamos Laboratory plus others

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### Question

Do I need z/VM to run xCAT on System z?

### Answer:

To run xCAT on Linux on System z you will need to have a license for z/VM and be running a level that supports it. xCAT can be supported on z/VM 5.4, 6.1 and 6.2.

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### Question:

What will xCAT do for my z/VM system ?

### Answer:

xCAT provides an easy to use, easy to install browser-based GUI interface to z/VM systems management. No unique GUI client is needed, so xCAT can enable you to manage your z/VM system from nearly any computing device (PC, Tablet, smartphone, etc).

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### Question:

How does xCAT fit into my current systems management ?

### Answer:

If you want a GUI interface to basic z/VM systems management functions that does not require any unique client and can be accessed from nearly any computing device, xCAT is for you. If you are already managing your x and/or p systems via xCAT, xCAT allows you to seamlessly integrate your z/VM systems management with the management of the rest of your infrastructure.

## xCAT Availability & Service

**Question:**

When is xCAT on z/VM planned to be generally available and when can it be ordered?

**Answer:**

xCAT for z/VM is already available as a free download. As of July 13, 2012, you can buy a service contract for xCAT on z/VM to provide you with IBM support of the xCAT on z/VM environment.

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**Question:**

How is xCAT available for a z/VM customer?

**Answer:**

xCAT for z/VM is an open source product and not shipped with the z/VM Operating System. It will **not** be provided through the traditional System z ordering methods. xCAT is provided for z/VM 5.4, 6.1 and 6.2 customers as a free download. To get this free open source tool for System z go to: [http://sourceforge.net/apps/mediawiki/xcat/index.php?title=Download\\_xCAT](http://sourceforge.net/apps/mediawiki/xcat/index.php?title=Download_xCAT)

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**Question:**

What levels of z/VM will xCAT run on?

**Answer:**

xCAT is provided for z/VM 5.4, 6.1 and 6.2 customers as a free download.

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**Question:**

If I have a problem with my open source xCAT tool will IBM support it?

**Answer:**

IBM will provide a service support contract for xCAT on z/VM for a fee. For additional information please refer to the Source Forge website at:

<http://www-03.ibm.com/systems/software/xcat/support.html>

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**Question:**

Do I have to pay for support?

**Answer:**

Yes to receive support from IBM. However as an open source tool, help is available from the xCAT User Mailing List at: [xcat-user@lists.sourceforge.net](mailto:xcat-user@lists.sourceforge.net)

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**Question:**

What levels of Linux will support this xCAT tool?

**Answer:**

- *Red Hat Enterprise Linux:* xCAT will run on Red Hat Enterprise Linux (RHEL) 5.4/5.5/5.6/6.0/6.1/6.2. As an open source tool, new levels will continually be added so check the SourceForge website frequently.
- *SUSE Linux Enterprise Server:* xCAT will run on SUSE Linux Enterprise Server (SLES) 10.3/10.4/11.0/11.1/11.2. As an open source tool, new levels will continually be added so check the SourceForge website frequently.

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## xCAT Benefits and Features

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**Question:**

What are the benefits of xCAT on z/VM?

**Answer:**

- Scalability (manages hundreds of virtual machines running Linux on System z)
  - Performance (minimal overhead)
  - Lightweight (download size of 100 MB)
  - Cross-Platform (supports IBM System x, p and z)
  - Open source (EPL) and free
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**Question:**

What features are available with xCAT on z/VM?

**Answer:**

The features currently available are :

- Lifecycle management – Define/Delete a virtual machine. Activate/Deactivate a virtual machine. Modify a virtual machine definition/running virtual machine.
  - Inventory – Collect software and hardware inventory of any VM. Collect the inventory of resources, e.g. disks and networks, on any zVM.
  - Image management – Clone any Linux VM. Install a brand new Linux OS on any VM based on autoyast or kickstart.
  - Operating system management – Upgrade Linux. Add, update, or delete software packages from any Linux VM. Run remote shell, rsync, post-scripts, etc.
  - Storage management – Add or delete ECKD/FBA disks from a disk pool. Add or delete ECKD or FBA disks to any VM.
  - Monitoring – Monitor any Linux VM metric, e.g. network, disk, CPU load, memory via Ganglia
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**Question:**

Are there functions specific for xCAT on z/VM

**Answer:**

The features specific to xCAT are:

- Image management – Create new Linux VM based on a shared NFS read-only root filesystem.

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## **xCAT on z/VM Future**

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**Question:**

What are the future plans for xCAT on System z?

**Answer:**

IBM reserves the right to provide updates at any time in the future, please check the SourceForge website to look for additional features. As an open source tool, you will not find announcements and updates from IBM in a traditional manner. IBM reserves the right to change or remove the packaging at any time. Without the service offering this tool is offered 'AS IS'.



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Somers, NY 10589  
U.S.A

/2012

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