Customer Perspective of Velocity Software

This document presents fragments from the IBMVM and LINUX390 mailing lists. These mailing lists are effectively the social network for technical staff working with z/VM and Linux on z/VM. There are probably 1500 unique subscribers with representatives from most Linux on z/VM installations, including the well known IBM reference customers for Linux on z/VM. Many of these installations are Velocity Software customers.

The mailing lists are not for marketing or product promotion, but are purely to have a free exchange of technical information among peers. Velocity Software employees participate in these discussions as peers on that basis when the subject is related to Linux or z/VM performance. As such, we have little influence on what users say on the list about the company and the products.

Note: Some texts were slightly edited to improve readability. The full URL is provided.

Product Selection

Many of the new Linux on z/VM installations at some point start asking about Performance Monitors (a lot of them are also shy and just read the responses that were given before).

Few customers have the resources to evaluate different products in sufficient detail to make such a selection. The response on such questions is not objective or commercial, but purely based on what they use to do their work.

Re: Monitoring zVM CPU usage with automated alerts

Patrick Spinler
Mon, 21 Apr 2008 10:08:34 -0700

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Scott Rohling wrote:
|
| I believe Omegamon XE can monitor zVM... but not sure offhand how records
| are fed thru TEPS/TEMS.

It can. We use it. I'd call it 'futzy'.

It works using a DCSS to send data to an Omegamon agent running in a
linux virt, which then forwards the data on to the tivoli tems.

We've found it both intricate to set up, problematic to keep running and
not providing nearly the nice detail and z/VM <-> zLinux
interoperational detail you'd get from Velocity. Your milage may vary.

- -- Pat

Disclaimer: We're not a Velocity customer. I only wish we were.

http://www.mail-archive.com/linux-390@vm.marist.edu/msg47677.html

Re: Tracking Hot Spots

LOREN CHARNLEY
Thu, 02 Oct 2008 06:36:26 -0700

Your best bet would be to investigate the Velocity Software Suite, they
are the only ones to have the performance monitor for VM. You would
probably have to customize the reports that you would need but that is
fairly straight forward. Velocity also has an excellent support staff.

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg19078.html

Re: OK a question about performace monitoring

Ed Zell
Tue, 13 Jun 2006 06:35:08 -0700

> It looks as if we are going to buy a kit. IBM was here and
> suggested perf toolkit and I know there is velocity. I.ve
> heard good things about both but what is prefered here by
> those who have used both or either.

I have never used the IBM performance toolkit, but I have been
running Velocity's ESAMON & ESAMAP for over 5 years. They replaced
VPAC in our shop and I have been very happy with them. The support
is excellent and I would highly recommend it to anyone.

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg01745.html

Re: Storage

Dave Jones
Tue, 01 May 2007 11:27:57 -0700

Hi, James.

No, z/VM does not provide a set of native CP/CMS commands that will show you what you are looking
for. You need to invest in a good z/VM monitor, such as the one Velocity Software offers. If you
are doing any serios z/VM work at all, you'll need it sooner or later......

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg08263.html

Re: z/VM Performance Toolkit for various z/VM 5.x releases

LOREN CHARNLEY
Wed, 09 Jan 2008 06:37:38 -0800

If you can afford a 'few' bucks look at Velocity Software's ESALPS
series performance package. You never have to worry about what release
of zVM you are using etc. plus you get first class support. You will
also be able to see a lot more information. I have been using it for 4+
years and have been completely satisfied with the product and support.
http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg12800.html

Re: Monitor for zVM

Rich Smrcina
Tue, 03 Jun 2008 07:46:49 -0700
Hobbit is a network services monitor. Even though a z/VM client is available, it is very high level
stuff and does not give the level of detail that ESALPS or zMON does (and certainly couldn't hope
to).

Loren appears to be looking for a lower cost performance monitor, zMON may be the right fit here.

Re: z/VM 5.2 CP INDICATE LOAD missing STORAGE utilization output

Steve Gentry
Wed, 13 Dec 2006 08:57:08 -0800

I had a similar problem with an exec when I went to 5.2. Apparently this STORAGE info was dropped
as it was considered sort of meaningless or incorrect. No one, at that time, made a recommendation
as to what to use instead, so I just removed the code. We used it for display purposes and never
actually used it as part of a calculation.
This is not necessarily a plug for the product, but we use ESAMON and I can get most of this type
of info from it. It's been a very good and useful product for us.

Steve G.

Re: ESALPS vs. VMRTM/VMPRF

David Boyes
Thu, 12 Jun 2003 13:46:16 -0700

> Has anyone running Linux under VM attempted to compare or evaluate the
> differences between the Velocity Software's ESALPS and IBM's VMRTM/VMPRF?

RTM and PRF are going away, replaced by the Performance Toolkit (aka
FCON/ESA).

> What were your conclusions as far as function and value?

ESALPS has far more features (in general, it's probably the most
comprehensive VM-hosted monitor and performance tool), but like most
powerful tools, the learning curve to master it is fairly steep.
Fortunately, Barton is usually available to help you through that part.

FCON is probably easier to learn and use (and I find the interface a little
more intuitive), but it doesn't do quite as much.

Performance Toolkit is probably cheaper, but it's like any tool -- you get
what you pay for.

Re: Linux Administration tools

Kern, Thomas
Tue, 06 Apr 2004 11:32:12 -0700

The problem with monitoring only in one place (for Linux under VM) is that
you are missing half the picture. Find good bosses who will spring for the
cost of properly monitoring all sides of your system.

Performance software plug

Craig Otway
Wed, 27 Jun 2007 17:07:57 -0700

 I have to plug this software and company (Velocity Software). We are new to
z/Linux and z/VM and if you are not using Velocity Software as a performance
tool on your z/Linux and z/VM project, you are missing out! Barton was
onsite for 1/2 of a day and pointed out numerous items that have already
been overlooked.

Re: OK a question about performace monitoring

Neale Ferguson
Tue, 13 Jun 2006 09:00:02 -0700

My experience at two of the places at which I worked has been with
Velocity's products. I really liked working with them, especially with the
SNMP data it collected from our Linux systems. We used ESATUNE quite a bit
too.

Performance Questions

Among the questions asked, there are frequently performance questions because with
virtualization of Linux on z/VM, performance has gotten the prime distinguishing factor.
Both questions and responses often take for granted that the installation is running
ESALPS, as most do.

Re: Testing Linux Z/vm

August Carideo
Fri, 26 Jun 2009 09:11:39 -0700

yes we are ficon, also using VDISk for swap, and we have changed the mach
size as suggested and a few other things
we have Velocity monitoring S/W
we are waiting on the Philippines to retry the test
thanks all for the feed back,
Augie

Re: Can I verify zVM is running on an IFL?

Jim Bohnsack
Mon, 12 Jun 2006 12:43:27 -0700
On the PERFSVM LPAR screen, if you scroll to the right and look at the Type column. I pointed at
it and hit PF1 for help and got this. Don't have an IFL, so I don't know what it would show--
progable IFL.

Type   The CPU type of the logical processors defined for the par-
              tition: "CP" for normal and "Spec" for IFL   or   ICF
              processors.
              The CPU type can be inserted only for z/VM 4.4 or later if
              enhanced LPAR monitor support is available.

Re: set share to stop a guest from getting service ?

Lionel B. Dyck
Tue, 01 Apr 2008 07:09:04 -0700

The goal will be to put the identified guest to 'sleep' until we can
evaluate if it is truly causing issues. To do that we have the Velocity
toolset which has a real time and historical view so we should be able to
do a quick triage and then either reset back to normal or force the guest
off.

Re: Upgrade to z/VM 5.3 hangs

Leland
Thu, 18 Oct 2007 14:24:46 -0700

Mark has gone for the weekend, but I can tell ya that we have some fairly spotty
data during the period. The reason is that both times the problem occurred (2
separate IPLs), most everything (especially service machines) froze up.

However, for a few intervals leading up to the first hang, the Velocity Page
Space Analysis report did show large spikes in the User Owned/Attached Expanded
Storage pages. All other intervals for these columns had 0. Actually, we never
see anything other than 0 for these, even during a normal business day.

Re: OK a question about performace monitoring

Gregg Reed
Wed, 14 Jun 2006 01:07:27 -0700

Don't let the manual get in your way, data is available from any node in a
collection.   Only been messing with macros since March and maybe, control
once I start to mess with screens... web way later...

Both are competent tools in terms of gathering and presenting all the
performance data available in one place, but the Velocity tools do a
better job at interpreting the meaning of the numbers and presenting the
implication of the numbers. If you're not a full-time performance
weenie, this is a major benefit.

Data Accuracy

Having complete and correct performance data is a key issue. With virtualization of Linux
on z/VM, it is not that obvious. Typically numbers from Linux tools are often not correct,
not always relevant, and frequently expensive to collect at sufficient detail to solve
performance problems.

Re: Bogus CPU utilization numbers from Linux Red Hat 4.6

Mark Post
Mon, 16 Jun 2008 22:57:43 -0700

>>> On Tue, Jun 17, 2008 at 12:00 AM, in message <>,
Thomas Kern <> wrote:
> I think that the discussion was that tools like PERFTK, ESAMON, CP IND
> USER show accurate numbers for what the whole virtual machine is using,
> and the the numbers from tools INSIDE a linux virtual machine such as
> TOP, SAR vary depending upon the level of the kernel, the distribution
> and the workload of the rest of the system.

With the exception that ESAMON normalizes what the Linux system reports against
what z/VM reports for a more accurate representation of what is happening
inside the guest OS.

Re: z/VM 5.2 ESAMON vs IBM PTK regarding SYTSHS_RSASHARE monitor record

Gregg Reed
Thu, 21 Dec 2006 06:05:44 -0800

I'd second that. The PTK is great at what it does and while I was doing an
extensive comparison a year ago, it's where I'd point operators and RTM
familiar folk to, it is a huge upgrade to RTM, but it takes an FMR/not
working as designed to do anything about. I would, rather tend to believe
ESAMON and when an issue arises, I can explore raw data/change the
panel/report to meet my expectations, ask and receive sound advice about my
perceptions. All that's bits and bytes, and we are all about the
details... however, if the specific number is important to you, track it,
correlate it to, report it to management as an indicator of.. . as long as
the underlining interpretation remains the same, it's a metric; if it adds,
subtracts, multiplies, divides, it's OK otherwise, move on.

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg05656.html

Re: z/vm monitor and linux data

Loren Charnley, Jr.
Fri, 02 Mar 2007 09:06:55 -0800

If you are not using ESALPS from Velocity Software, you will not get the
most accurate data and will not have an easy way to capture and process that
data. You really need to look into this, it is not that expensive. If you
think about it, to get good information and be able to report it, cost is
not a concern....

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg06996.html

Re: Channel Contention

Brian Nielsen
Thu, 18 Feb 2010 07:48:53 -0800

I know tape drives are not involved in your process, but I do know that
DDR is very effective at driving the channel to them. We have a bank of 4
3590's shared between VM and z/OS on 2 ESCON channels. When I had 2 DDR's
writing to 2 of the tapes drives it effectivley saturated the channels
from the VM LPAR and the z/OS jobs trying to use the other 2 tape drives
suffered horribly. The reports from Velocity's ESAMAP made it easy to
diagnose this cross-LPAR interference. (I ended up moving my DDR's to a
different time slot.) I mention this to say that it will be good that
there will not be other production workload going on to the DASD when you
do this.

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg28979.html

Re: Can I verify zVM is running on an IFL?

Brian Nielsen
Mon, 12 Jun 2006 09:41:31 -0700

Even better, the Velocity HDR report shows what processor type you're
running on:

    Operating on IFL Processor(s)

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg01710.html

Re: Performance Rules of Thumb ?

Dave Jones
Mon, 21 May 2007 10:20:17 -0700

My first rule of thumb for z/VM performance is to install and use a good performance monitoring
tool. ;-)If you are using Velocity's products, there are some good performance hints and tips that
you can grab off of their web site, I believe. Rob van der Heij of Velocity gave a very good
performance session at the recent z/Expo over in Europe that shows how he solved three z/VM
performance problems in detail. I can send you a copy of the presentation, if you'd like.

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg08636.html

Customer Support

At Velocity Software, performance experts develop the products. This means that focus
is often on what you need in the product to solve performance problems rather than
having a display that shows the new z/VM features. It also means that support staff can
understand the performance challenges that customers have, and know where to find
the data in the screens.
Features required by customers get into the product easily without the need for a formal
requirements process where the subject matter expert needs to explain the issue to the
software developers.

Re: z/vm monitor and linux data

Schuh, Richard
Fri, 02 Mar 2007 09:29:47 -0800

The folks at Velocity are usually very good at working with the
customer. They may be able to help greatly in making the determination
of what is important and what is not, and (important) why. Struggling
through the mass of data produced by the monitor can be a daunting task,
especially for someone new to VM.

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg06999.html

Re: Velocity expertise needed...

Rich Smrcina
Thu, 27 Aug 2009 12:12:48 -0700

Have you tried contacting Velocity Software to ask them with
assistance? They will generally lend a hand with performance related
issues, especially where it relates to using their software.

http://www.mail-archive.com/linux-390@vm.marist.edu/msg54090.html

Re: System utiliization

Rob van der Heij
Fri, 15 Jun 2007 01:38:46 -0700

On 6/14/07,
<> wrote:

    I opened an incident with Velocity this morning and still haven't heard back
    from them.

Please look for those critters eating out of your inbasket... ;-)
I know we responded to this a few hours after you opened the issue,
asking you to upload the reports of a day (instead of asking you

numbers one at a time). If it's high over shorter periods you might
want to upload an hour of history data for us to look at.

Re: Overcommit ratio

Marcy Cortes
Tue, 13 May 2008 08:18:28 -0700

Barton wrote:
"Using this measure, what do y'all run?"

Is there a Velocity screen that adds them all up? I don't want to
resort to excel :)

Accounting and Capacity Planning

Charge-back and accounting is normally done to motivate users to reduce their resource
consumption (and cost). Many installations want to feed relevant usage data into their
enterprise planning and charge-back products. ESALPS interfaces with these products.

Re: Vm Accounting data and DISKACNT

Martin, Terry R. (CMS/CTR) (CTR)
Thu, 23 Jul 2009 21:14:23 -0700

Thanks for the information I think I have a better grasp of the way this
works now. I will get with the capacity group to see what interval they
want. Since I am sending them Monitoring data from my Velocity product
everyday that they can feed in to their MICS and MXG systems I really
think the need for accounting data may be rather redundant for the most
part, that is they can get pretty much what they need for accounting
from the information included in the Velocity files for MICS and MXG. I
guess they will need to see that for themselves!

Re: z/VM Capacity Planning tools and methods

Bob Bates
Thu, 04 Sep 2008 14:39:09 -0700

We use Velocity. ESAMAP runs at midnight automatically and as part of
the process have it send MICS formatted data to a z/OS system where the
Capacity folks run it through their stuff.

Re: z/VM Capacity Planning tools and methods

Tim Joyce
Fri, 05 Sep 2008 05:21:41 -0700

I use ESAMAP (Velocity) also. Since I do capacity planning for VM and
VSE using different monitor/reporting tools, I massage data from reports
on each platform (average CPU per hour) using REXX and port data to a
predefined EXCEL spreadsheet. From the spreadsheet I can chart CPU by
hour, day, weekday, weekend, month, and year. If you would like I can
send you and example of the spreadsheet.

Re: CP unresponsive on certain guests

Dave Jones
Wed, 15 Sep 2010 15:47:48 -0700

To find out *why* the guest is not able to run, you need the services of
a good z/VM performance monitor.....IBM offers the Performance Monitor
(it comes bundles with z/VM, but it's an extra cost offering) and
Velocity Software (http://www.velocity-software.com/) has a very good
suite of products as well. IMHO it' practically impossible to run a
modern production grade z/VM-zLinux system without a good performance
monitor to help solve issues like the one your having now.

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg32288.html

Alerts and Availability Monitoring

Automated alerts are configured to detect when performance metrics get beyond a
threshold and require further action. Being able to act on such signals helps to prevent
outages and performance issues. ESALPS can be used to check each of the performance
variables every minute (the number of performance variables collected in an average
Linux on z/VM system is well over 1 million).

It is possible to configure such alerts with other tools or products, but that requires yet
another product to learn and deploy.

Re: Process or tool to verify linux/oracle environment under vm
Rich Smrcina
Thu, 09 Oct 2008 12:08:28 -0700

You're looking for a network services monitor.

There are several open source packages available, Hobbit is one that is very good at this type
of job. There are also clients available for System z operating systems.
http://hobbitmon.sourceforge.net.

If you have ESALPS from Velocity Software, it can also perform availability
monitoring.

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg19314.html

Re: Capturing Daily system logs ?

Lionel B. Dyck
Thu, 28 Jun 2007 12:20:20 -0700

Phil in answer to your question we have Velocity's ESALPS which at
midnight the ESAMP service calls a exec that does some end-of-day
processing and we have modified that to start our own service machine
which runs several execs to do things we need to do at that time.

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg09199.html

Re: CP Message HCP401I

Michael Harding
Thu, 29 Oct 2009 15:28:40 -0700

On the other hand, if you have Velocity Software's ESAMON & friends, or

CA's VM:Spool you could set up for alerts at a lower trip value - or
higher, for that matter - and ignore the HCP401I message. If you had the
V/Spool option of VM:Spool you could even have it freeze users writing to
spool once it had reached whatever point you considered critical.

Leading Experts in the Field

When performance related questions are raised on the list, Barton Robinson and Rob van
der Heij of Velocity Software participate in the discussions and provide answers when
time permits (customer problems are handled first obviously and have higher priority).
From the reactions on the mailing list we can see this is appreciated and expected.

Re: Virtual vs. Physical Memory in ZVM

P S
Thu, 13 Aug 2009 13:44:44 -0700

I'm sure Velocity can help you here. The fact that Barton or Rob
haven't weighed in suggests to me that they're on a (rare)
vacation.Suggest you call (650) 964-8867 and find out.

Re: Performance Question

Martin, Terry R. (CMS/CTR) (CTR)
Thu, 25 Sep 2008 05:04:32 -0700

Hi

I know there are some performance folks out there (Velocity, IBM
(Omegamon)) any thoughts on this from you all?

Re: How to measure XIP benefit

Richard Troth
Tue, 10 Aug 2010 16:26:47 -0700

Barton might have some hard numbers, since Velocity has been pushing
XIP for quite a while now.

Re: Linux Sizing & z/VM Customization

Mark Post
Thu, 27 Aug 2009 13:10:56 -0700

If by "build an NSS" you mean having the kernel in an NSS, that will save you
about 1MB per guest that uses it. Not a whole lot.

According to Barton Robinson of Velocity Software, you get the biggest real
storage savings by using CMM and xip2fs. (If I'm remembering wrong, I know
Barton will correct this.)

Re: SWAPGEN

Rich Smrcina
Thu, 30 Apr 2009 09:21:25 -0700

I checked to make sure that Barton hasn't answered before I started writing
this... :)

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg23817.html

Training and Education

Velocity Software schedules regular Performance Education sessions. As education
budgets shrink and electronic communication gets easier, a lot of education happens on
the mailing list and in direct interaction with the customers. Frequently questions are
answered via e-mail or Instant Messaging, providing relevant education for the customer
when they need it. When Velocity Software review customer performance data, this also
provides opportunities for the customer to learn which metrics are relevant for their
configuration, and what the good and bad values are.

Re: User-Recommended z/VM Training

Hicks, Bennie
Thu, 26 Mar 2009 07:34:34 -0700

Martin, while your request is not specific as to you/your group's
responsibility with Linux (versus another group handling Linux), I strongly
recommend that you target a class that at least touches on the basics of Linux,
and the more specific to Z the better. You will inevitably be involved with
Linux, and understanding these concepts will be crucial to the success/failure
of the evaluation (especially if there is a Zseries vs. intel/VMWare hidden
agenda), IMHO.

There are some great Redbooks very specific to Suse or Red Hat installations
with VM recommendations, start to finish!

Also crucial to the evaluation are some basic VM Performance considerations,
and having attended Velocity Software's z/VM and Linux under z/VM Performance
Class, I do recommend this one.
http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg23032.html

Re: Support of z/VM and zLinux environments

Harris, Nick J.
Thu, 26 Mar 2009 13:56:45 -0700

Hi Berry,
It is really working very well. Linux on system Z and z/VM was new to
both the mainframe group and the 'dark side' so we are learning
together. We have the Velocity products and we had Barton come to our
shop to teach a performance class on Linux and VM and both sides
attended. It was very helpful especially for the dark side guys as
virtualization is new to them. We are a small shop and we work well
together so if I see something that might be a problem I can go over to
the 'dark side' and talk about it.
It can be a problem if everyone is not on the same page.

http://www.mail-archive.com/ibmvm@listserv.uark.edu/msg23060.html