Velocity in Nedbank

10 November 2014

GROUP TECHNOLOGY

A Very Short Story!

VELOCITY Software Inc.

z/VM, Enterprise Linux on System-z and Network Performance Monitoring is Velocity Software single focus point. This includes but not limited to performance monitor and capacity planning, all package in one solution.

The Question is why this is important for running Linux on System – z and why did Nedbank go this route?

This is not a demonstration of Velocity Software!

Legal Disclaimer.

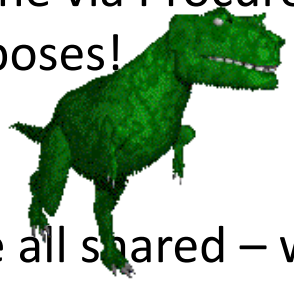
To keep the lawyers happy!

I do this of my own free will. I do not work for Velocity, IBM, CA, SuSe, RedHat or any other Vendor that may be mentioned during this presentation. I do not get any Financial or any other reward from any of the vendors.

Why Performance / Capacity Management?

THE TRADITIONAL VIEW OF OPEN SYSTEMS:

- Open Systems traditional is application specific and not multiple Enterprise Applications in one environment.
- Outages are not necessary very visible and impact is minimized.
- Open System's Capacity is as a rule very under-utilized – I am going to get clobbered!
- Resources are not normally shared – little interference.
- Capacity Planning is normally re-active or done via Procurement.
- Monitoring tools is only for recreational purposes!



Why is it different running Linux on z/VM:

- Resources (CPU, Memory, I/O, Networks) are all shared – well except disk platters!
- Resources utilized to the maximum, we strive to burn the Capacity!
- Allocation is normally from Development to Production.
- Nedbank currently 239 Guest, 417 Virtual CPU's on 12 x Physical IFL's. Everybody is waiting for something to go wrong!
- Abuse by one server can impact others – Discipline, Discipline, Discipline!

Nedbank Background

- Nedbank started the journey to running Linux on System-z in 2010 with a POC running SuSe guests on a z/VM.
- The main aim was consolidation of our middleware environments – specific core consolidation / reduction - thus licencing consolidation / reduction.
- However before the final decision was made, SuSe / Novell got taken over by a consortium (the word Microsoft is mentioned). Nedbank select Enterprise RedHat Linux.
- For the initial implementation of z/VM we did what everybody did – cherry pick from the IBM z/VM "Smarties" box. We chose the blue "Smarties" – IBM Performance Monitor. Very good IBM Salesmen.
- Immediately we saw and issue, Performance monitor cannot give us a single view from the z-Server level down to the guest level.
- Everybody started to his own preferred Linux tools e.g. SAR, TOP, NMON!
- The final straw was BMC's BCO agent pricing. Mad!
- Chaos of note!

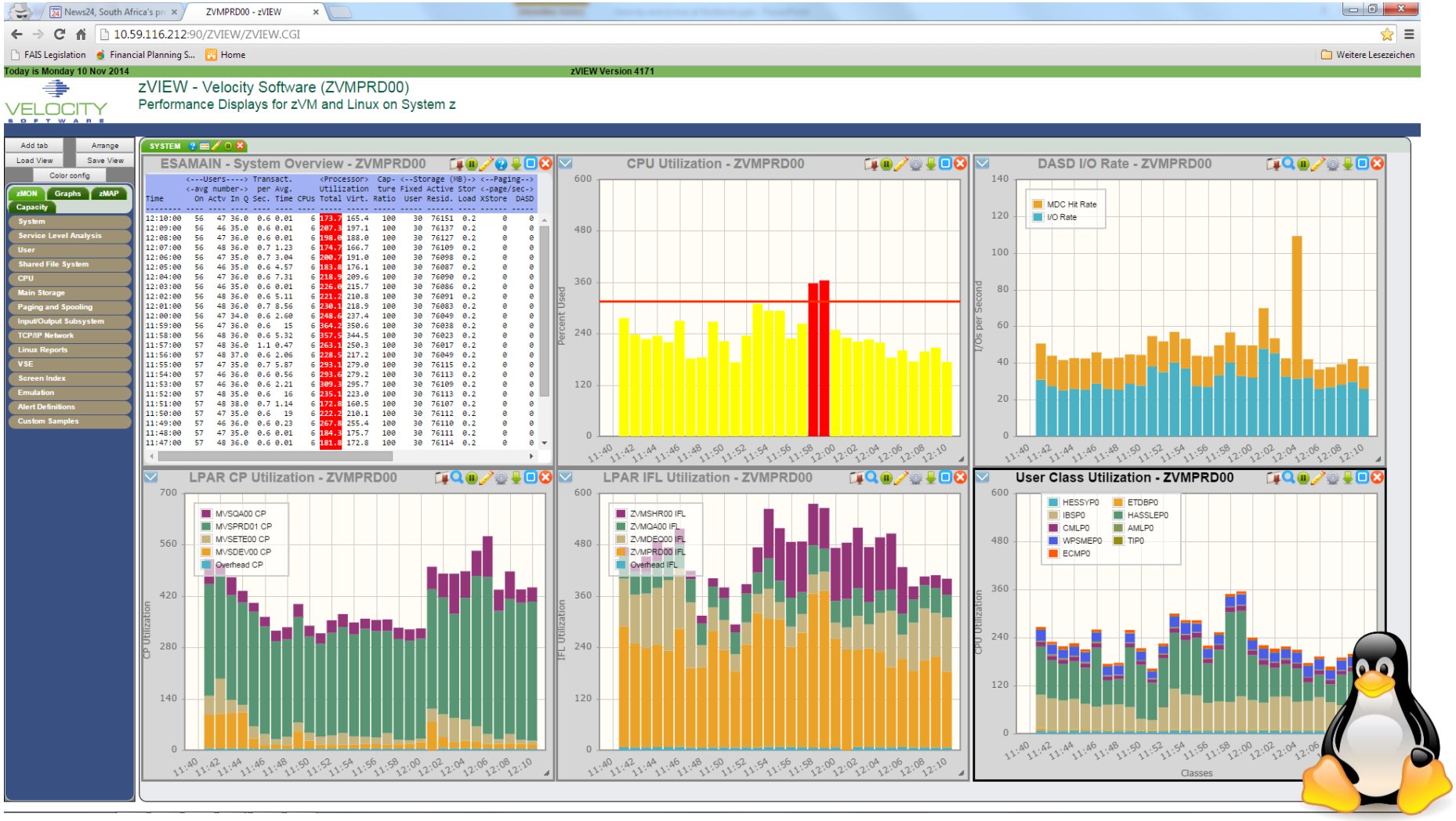
Velocity & Nedbank

- We were in desperate situation to address the issues around Performance Monitoring and Capacity Planning for the Entire Enterprise Linux environment at Nedbank.
- We did what everybody do, I think – Asked Klaus Bergmann!
- He put us in touch with Velocity. Skype workshops followed with Velocity.
- On Nedbank's visit to IBM Böblingen Labs early 2013, we saw a Velocity used within IBM's own Linux environments. That sold it.
- Although CA in South Africa also supply Velocity we decided to acquired directly from Velocity Inc. Massive legal issues later, but we licenced with Velocity Inc. directly during October 2013.

- What make Velocity so special?

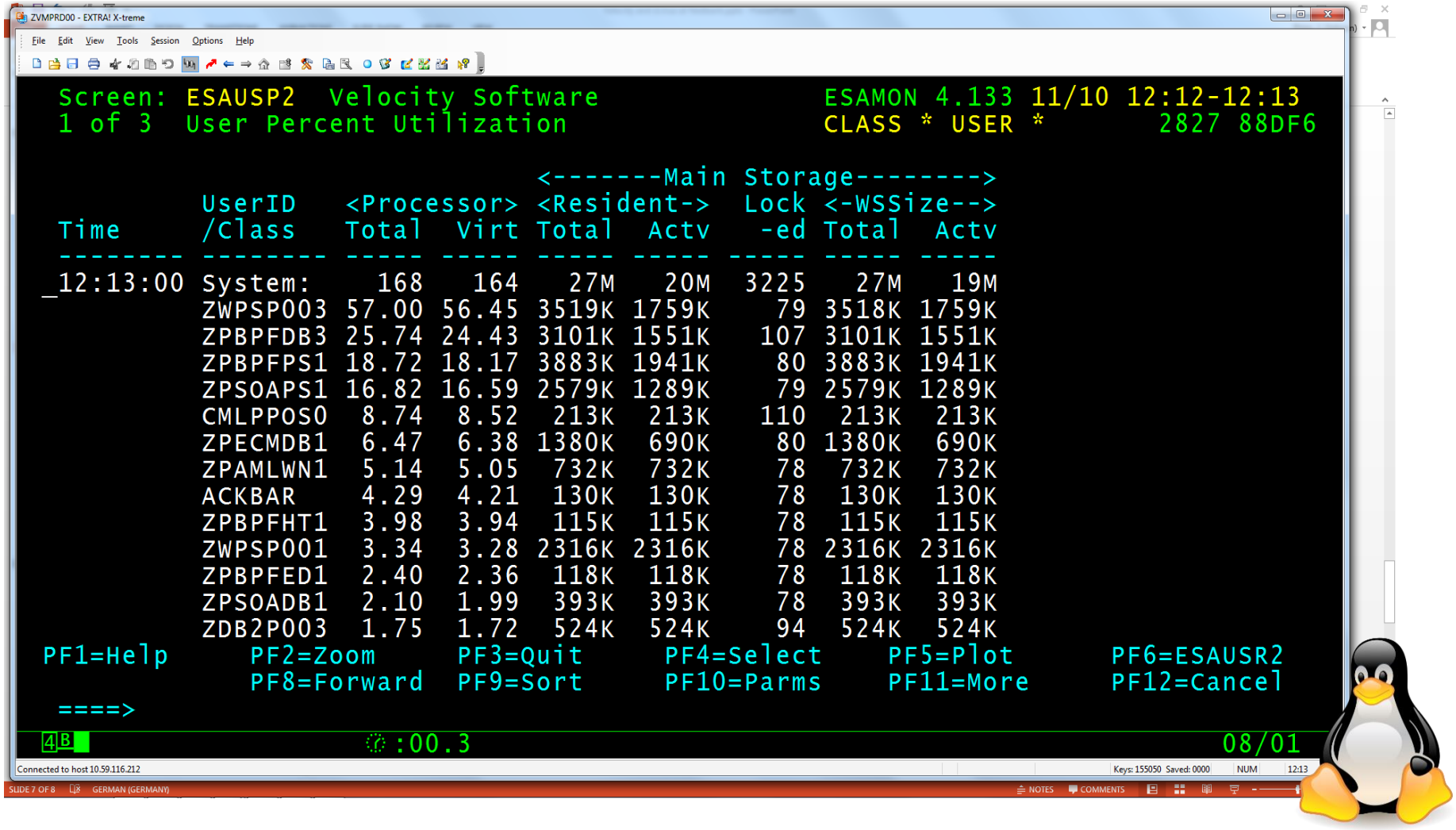
Why Velocity?

- Well it works for the youngsters!



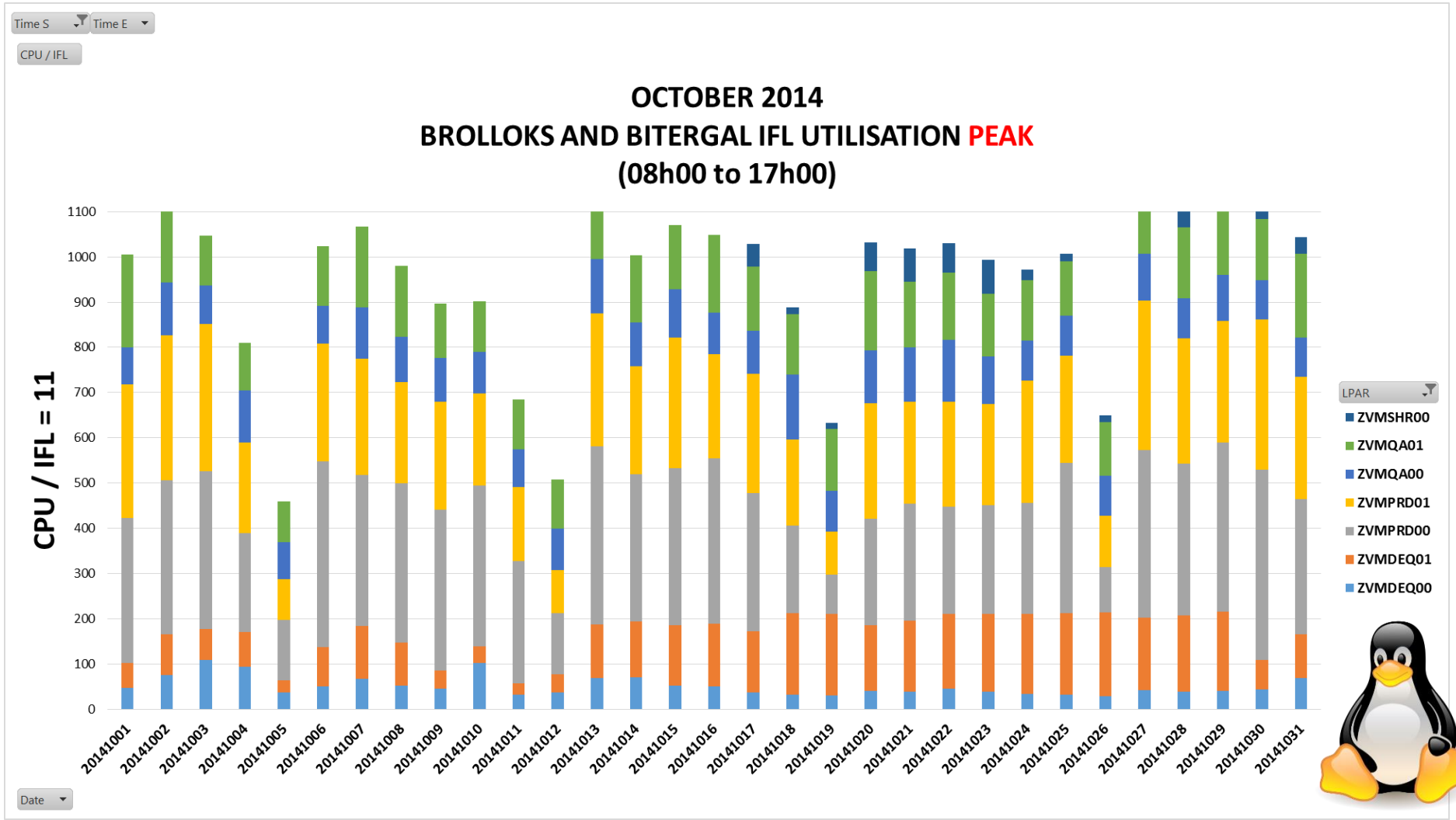
Why Velocity?(continue)

- But the best is it works for the young by hart – Stuff that works!



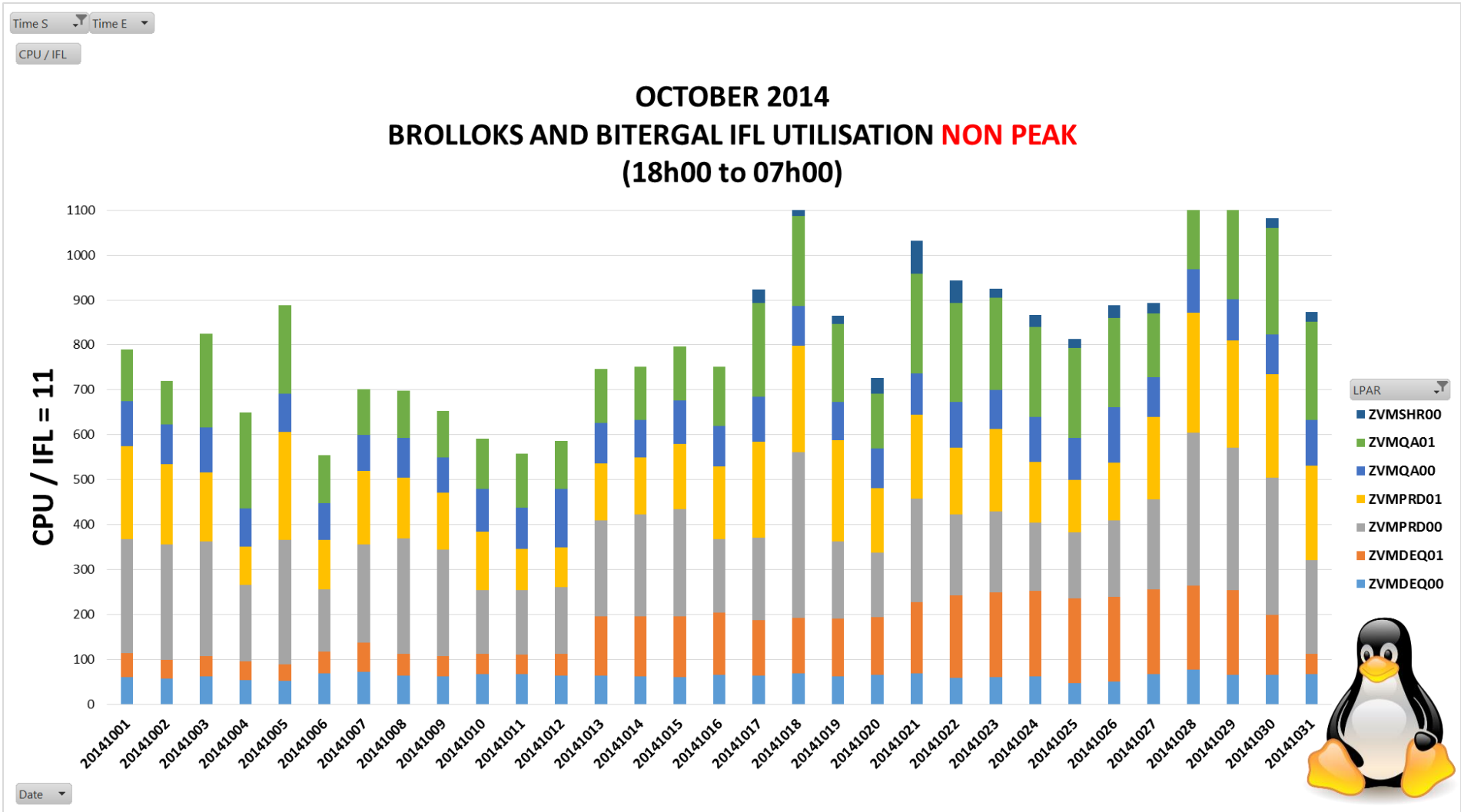
Why Velocity?(continue)

- It Works for Capacity Planning - CEC / LPAR Level – IFL utilisation Peak.



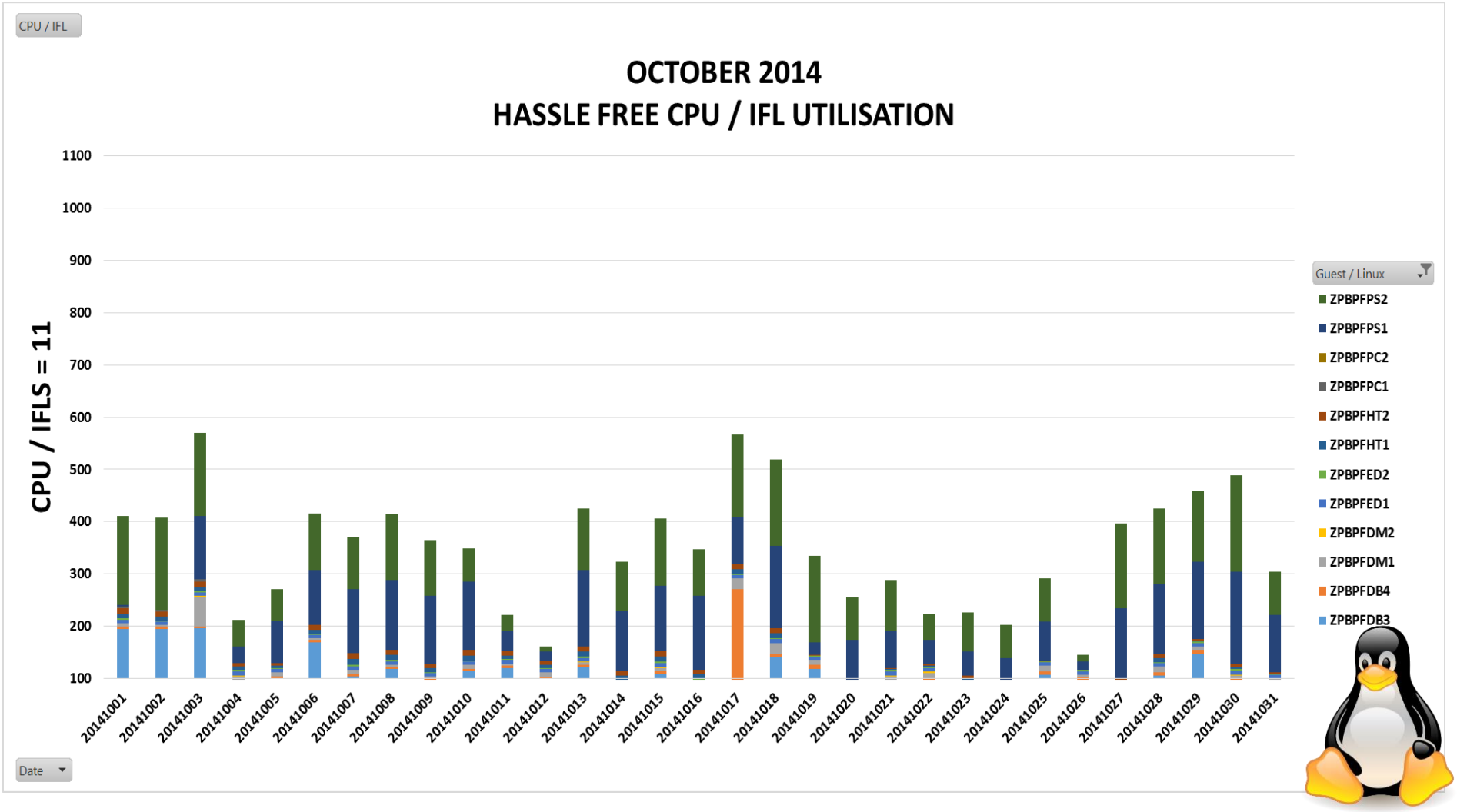
Why Velocity?(continue)

- It Works for Capacity Planning - CEC / LPAR Level – IFL utilisation Non Peak.



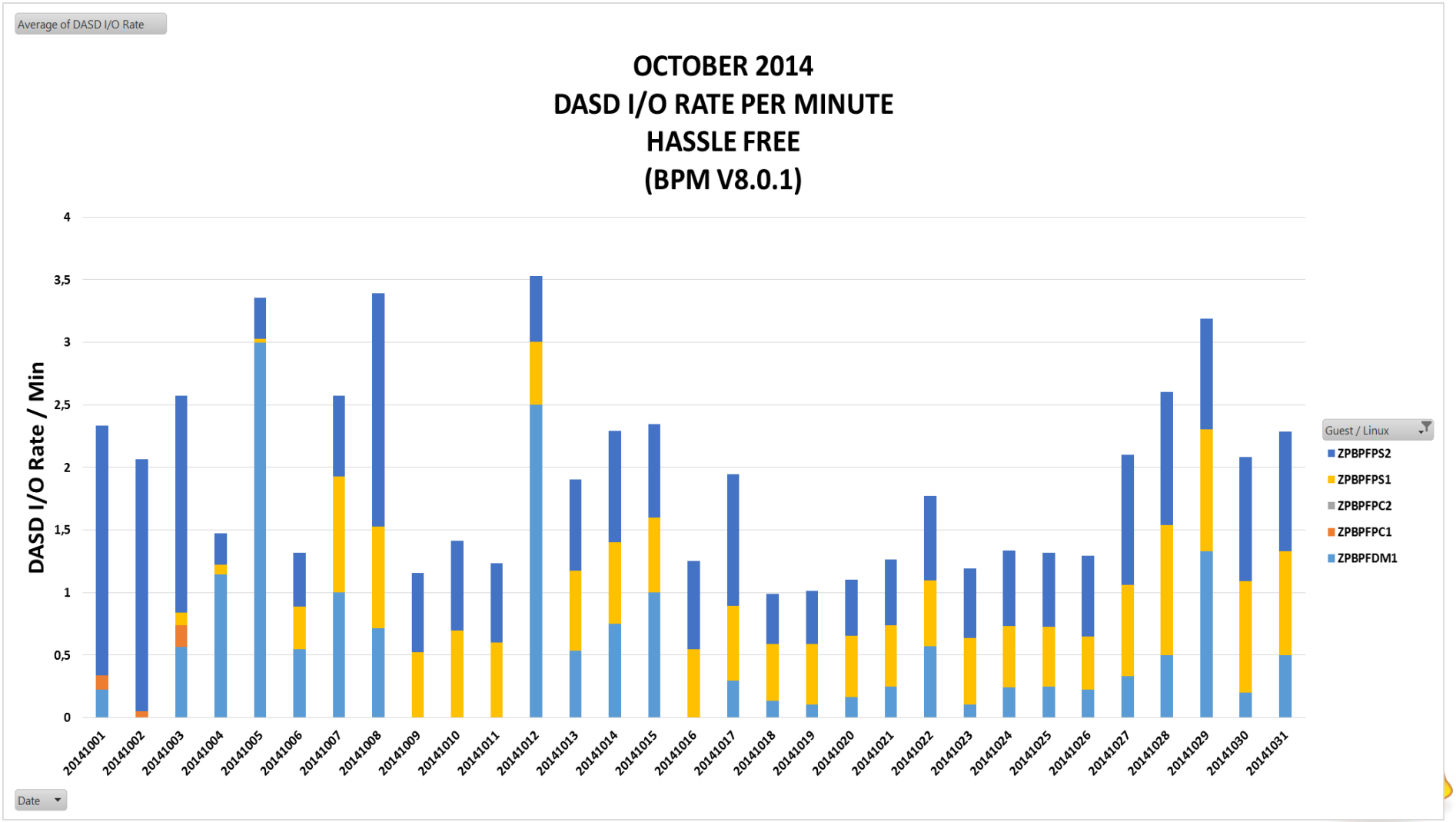
Why Velocity?(continue)

- It Work for Capacity Planning at Linux Guest Level.



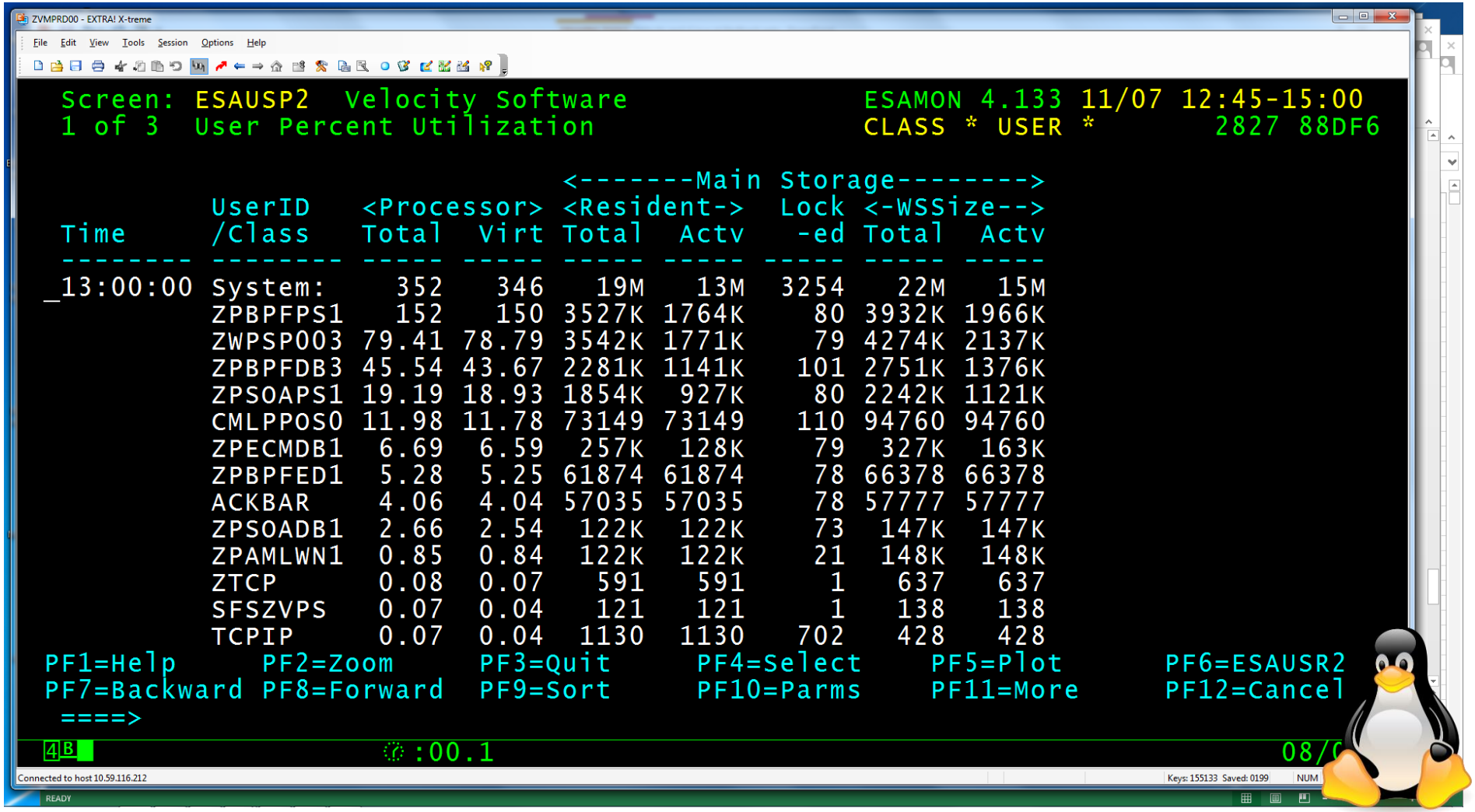
Why Velocity?(continue)

- Multiple aspects of environment is monitored.



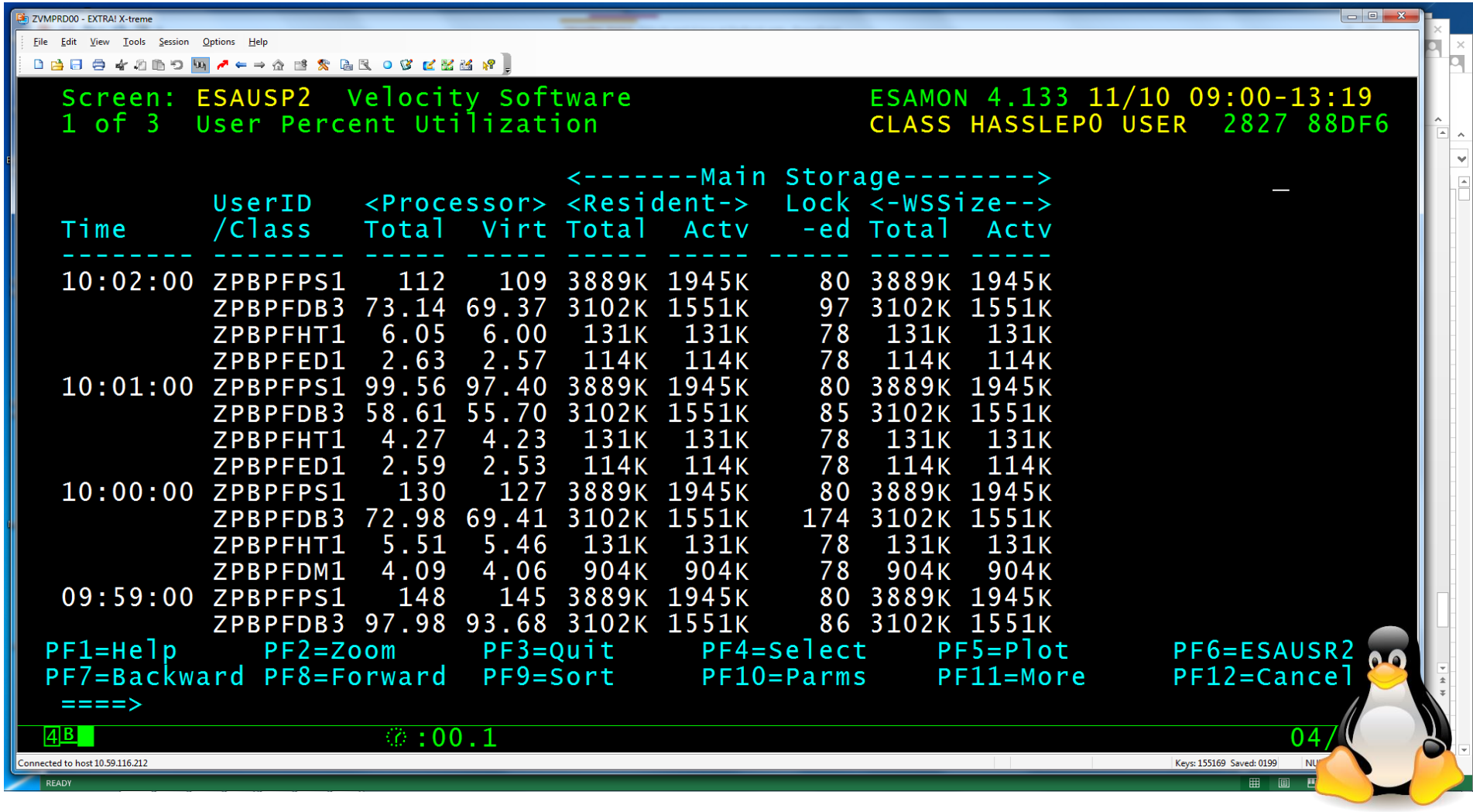
Why Velocity?

- Performance Management – What happened yesterday at 13:00?



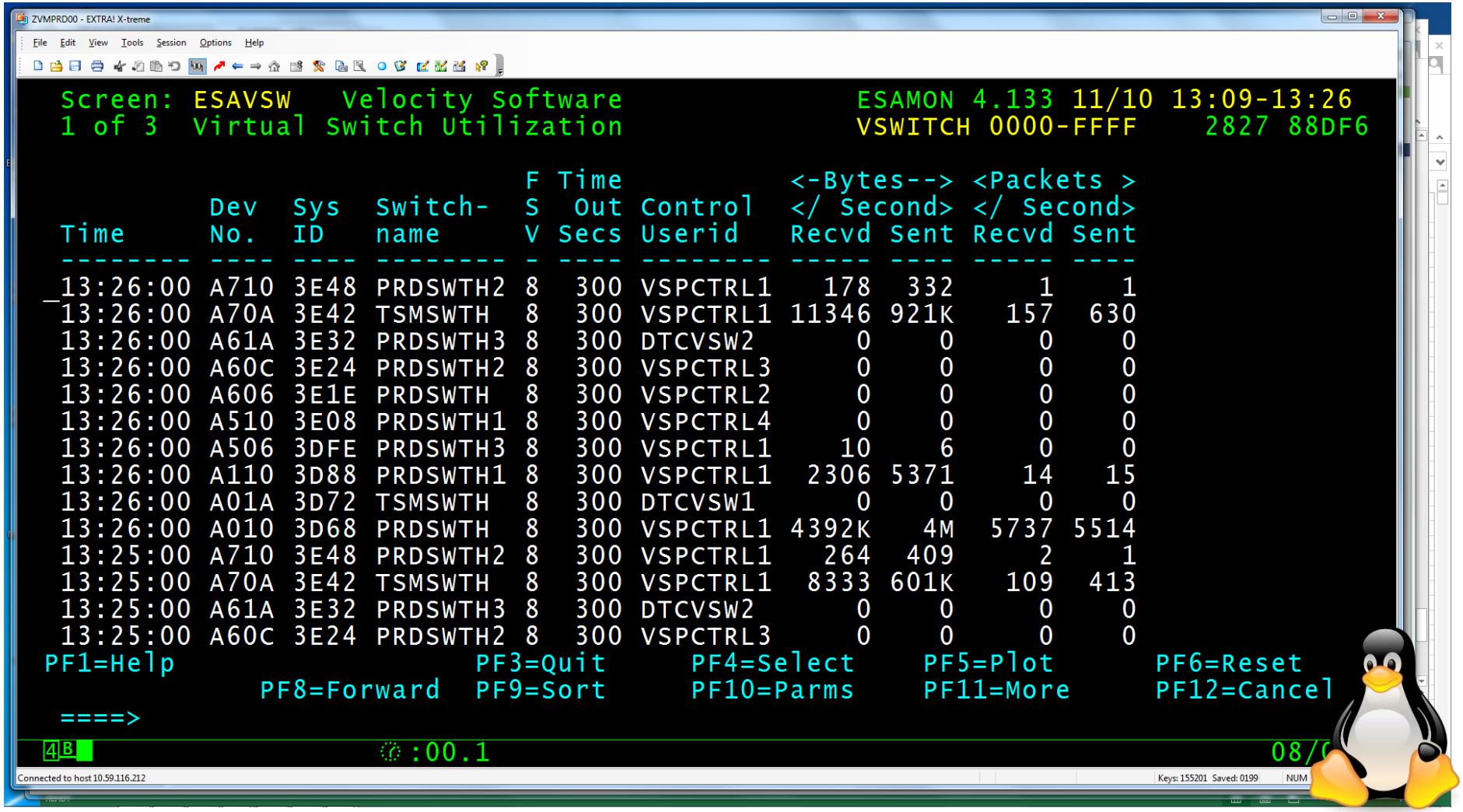
Why Velocity?

- Performance Monitor – What happened this morning at 10:00 with BPM?



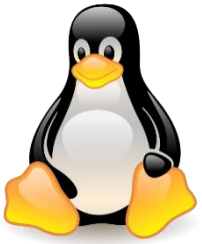
Why Velocity?(continue)

- Network view – We said that it can handle the Network also!



Why Velocity?(continue)

- One Product for z/VM, Linux guests and Networks.
- Do not utilize huge amounts of CPU (< 1%) to capture the data.
- View from CEC and LPAR Level – Chopper View.
- Devil is in the detail – Drill down to the relevant server view.
- Big benefit as Velocity give the real CPU utilisation CEC, LPAR and Guest level, represented as % of Real IFL utilisation. This is a huge benefit as it give a normalized utilisation profile across all.
- Standard Capacity Planning reports – Daily, Weekly & Monthly.
- History capabilities – One Minutes Interval within 24 hours. Fifteen Minutes interval after 24 Hours.
- Automated Alerts on performance thresholds and even include Linux File System utilisation.
- Exceptional support – Really very-very exceptional support that includes Capacity Planning and help on interpretation.



Questions???

I Told you it is a short story!