Where are we supposed to run that?

A discussion on enterprise computing platforms

Jonathan Gladstone, P.Eng.
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What’s the Issue?

Continued evolution of the IT landscape: recent trends & drivers continually re-open questions about what platform to run and where.

• Platform trends
  • from fewer larger systems to more smaller systems – e.g. Windows & Linux displacing Tandem, Unisys, AS/400, z/OS
  • Systems of Record vs. Systems of Engagement

• Virtualization & clustering trends
  • Especially in smaller systems, providing more clustering and HA solutions
  • Multilevel app design – maturity of “client-server”

• Availability of “Cloud Computing” in its many flavours
  • IaaS, PaaS, SaaS and more specialized forms of “Business Process as a Service” (e.g. UCaaS)

• Developments making hybrid operations easier
  • e.g. third-party chargeback, software-defined networking (SDN)

• Developments making hybrid operations more likely
  • BYOD, “Internet of Everything”, “Big Data”

So what do you tell the Executive Committee when they want to know how to implement that new application, or whether to migrate the old one(s)?
How is this different?

• Some of it is not!
  • Platform choices
    • There were many – think Sperry Rand, Burroughs, DEC, Tandem, assorted IBM
  • Virtualization
    • Available for decades – think IBM’s VM and MVS among others
  • Availability of “Cloud Computing” in its many flavours
    • Not new either, just more general and more pervasive – think ADP for “Payroll-as-a-Service”

• So what’s left?
  • Platform choices (computing, storage, networks) are constantly changing – we need to work with current and coming alternatives
  • Technology developments make hybrid operations easier & more likely
  • Changes in the regulatory & business environments make globalization & outsourcing more possible, and magnify financial benefits
    • Easier to get to lower-wage geographies and to achieve bigger economies of scale
What to do?
What to do?

We have some choices to make, but we have to make them in the right order!

- **Functional Requirements** – this has always been your proper starting point!
- **Availability Requirements** – HA, BR, DR, demand spike tolerance
- **Degree of use of “Cloud Computing” or “Outsourcing”** – many questions
  - Economies of scale
  - Co-location requirements
  - Regulatory and contractual requirements
- **Platform** – this is your last choice, not your first!
  - Proprietary or appliance application may leave no choice
  - Other choices may depend on existing vendor agreements and/or enterprise standards.

The platform choice is last. The “cloud” decision is second last. Cost is not on the list. The business case needs to start with requirements. These choices are outcomes based on analysis of the requirements at hand. They are not inputs!
Questions?
My material comes from broad reading as well as from day-to-day experience; this is just a small sample of very recent relevant articles rather than an exhaustive list of references. In reverse date order…

- “Microsoft Add Cloud Chargeback To Windows Server”
  - InformationWeek Cloud: Apr. 12, 2013
    - http://www.informationweek.com/microsoft-adds-cloud-chargeback-to-windo/240152783

- “There’s more to cloud computing than just hosting”
  - The Register: Apr. 11, 2013
    - http://www.theregister.co.uk/2013/04/11/cloud_hybrid/

- “Software-defined networking works up a head of steam”
  - The Register: Apr. 11, 2013
    - http://www.theregister.co.uk/2013/04/11/software_defined_networking_feature/

- “Internet of Everything is coming: Cisco”
  - Computing Canada: April 2013, p.14

- “Five Reasons You Need Hybrid Cloud Communications”
  - CloudTweaks: Apr. 8, 2013

- “Are You Up To The Challenge? Seizing Big Opportunities In Big Data”
  - CRN: Apr. 8, 2013
About the Author

Jonathan Gladstone is an IT Capacity Management professional with over 20 years’ experience in computer systems management and planning. He has been at the BMO Financial Group for over 15 years, and working in capacity planning for well over a decade. He is BMO’s representative on the Computer Studies Advisory Committee at Georgian College in Barrie, ON, and is certified in ITIL v2 and v3 fundamentals. Jonathan holds a B.A.Sc. degree in Electrical Engineering from the University of Toronto and P.Eng. certification from Professional Engineers Ontario.

Jonathan has made many IT presentations over the years, including at CMG Canada, CMG Mid-west and (informally) at CMG International. You can find him online at LinkedIn, on Twitter @jbglad59 or at his blog, http://alwaysgrumpy.wordpress.com