



Park Hyatt Toronto, Toronto, ON • May 27, 2015

For Mission Critical Applications: Why You Can't Ignore It

CanadianCIO

EXECUTIVE ROUNDTABLE

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The Host

CanadianCIO is the voice of IT decision makers in Canada. It provides thought leadership, research, peer recognition and industry engagement via its print and digital magazine, multimedia content and special events.

The Moderator

Veteran technology journalist Shane Schick is the editor of CanadianCIO. He has chronicled the IT sector in Canada and beyond as a writer and/or editor for media outlets such as the Globe and Mail, Yahoo Finance, FierceDeveloper, expertIP and the Financial Post. Formerly vice-president, content and community (editor-in-chief) at IT World Canada, Shane has won various awards for his journalism and appeared as an expert guest on BNN, CBC and CTV.

Sponsor

Red Hat Inc. has been an innovator in open source technology for over two decades. Today more than 90 per cent of Fortune 500 companies use Red Hat's software, cloud, storage, big data and virtualization offerings. With more than 85 offices in 35 countries, Red Hat is a global leader in enterprise IT.

Special Guests

Luc Villeneuve is country leader and general manager at Red Hat Canada. He has held the title of president at McAfee Canada, Pharmatrust and NCR (the latter for Europe/Canada). Other previous roles include positions at Sun Microsystems, BCE and GE Capital.

Paul Pinkney is director, solution architecture at Red Hat Canada. He joined Red Hat from Symantec Canada where he was director of sales programs and strategy. His previous experience includes various engineering and management positions at Veritas Software.

Craig Klein has been Red Hat's director of healthcare for North America since 2009. During his two decades in the software development sector he has specialized in sales, marketing, strategy, training and general management.

Participants

Roundtable participants included:

- the CIO of a provincially funded, community-based body that coordinates the planning and funding of regional healthcare services such as hospitals, long term care and addiction treatment
- director of IT for the provincial branch of a national charity dedicated to fighting a major disease; the organization raises money, funds research, runs community programs and engages in public awareness campaigns
- global IT director for a multi-billion dollar pharmaceutical and biotech firm with international operations
- CIO of a national not-for-profit provider of home- and community-based health services
- CEO of a software firm whose SaaS-based solutions are used by frontline healthcare workers in North America and Asia
- a systems officer for a provincial government ministry that provides many consumer-facing services involving the collection of personal data

Topical News and Trends

The changing CIO

CIOs are dealing with growing influence but shrinking IT budgets. Gartner's 2015 survey of 2,810 CIOs in 84 countries shows that 41 per cent of CIOs are now reporting directly to their CEO, one of the highest levels ever seen in Gartner's CIO survey.

Gartner calls it:

"... a result of the digital narrative gaining prominence in the boardroom and on the executive committee. Even stronger evidence of opportunity for CIOs is the fact that the survey reveals that CEOs expect them to lead the digital charge during this critical transition period."

The survey finds, however, that the average IT budget will grow by just one per cent in 2015. It also estimates that 38 per cent of total IT spending already takes place outside of the IT department and its budget, a number Gartner says could surpass 50 per cent by 2017.

Seventy-five per cent of CIOs agree they must "flip" their leadership style over the next three years from "controlling" to "visionary." Although Gartner says this requires CIOs to spend less time "running the IT shop" and more time engaging internal leadership and external customers, the survey suggests CIOs are spending five per cent more time on 'keeping the lights on' than CIOs who were surveyed in 2011.

Open Source gains traction

According to the 2015 Future of Open Source Survey, 78 per cent of companies now report running all or part of their operations on open source. That's nearly double the 2010 number and the highest level in the eight-year history of the survey, which polled 1,300 senior executives and IT professionals this year. In addition:

- 88 per cent expect to increase their contributions to open source projects
- in the next two to three years
- 58 per cent believe open source affords the greatest opportunity to scale
- 55 per cent believe open source delivers better security than proprietary solutions
- 50 per cent said open source helps them find and recruit top talent

Sunny forecast for OpenStack cloud

In a survey of 202 IT decision makers conducted by IDC and sponsored by Red Hat, 88 per cent said they expect OpenStack to play a role in their overall cloud strategy in the next three years. The study, released in January 2015, also found that 43 per cent expect to use OpenStack APIs to enable integration across a range of middleware and infrastructure.

Apple launches ResearchKit and HealthKit

In April, Apple launched ResearchKit, an open source software framework targeting the healthcare and fitness sectors. Apps developed under the program will enable iPhone and iPod users to monitor their own health and exercise data. Users can also give healthcare providers and scientists permission to collect their data. The system will give individuals the ability to track their own health while creating a larger pool of healthcare data that clinicians can use for research and diagnostic purposes.

Apple also introduced HealthKit, an open source API framework that allows unrelated health and fitness apps to work together to collect and share data.

Roundtable Focus

Public, not-for-profit entities such as healthcare systems are facing a critical shortage of resources and desperately need to find cost savings. The use of open source can result in great cost savings. So why aren't organizations rushing to open source for their mission critical applications or for virtualization?

As much as these organizations are diligent in their search for savings, there are questions and concerns that may be holding back adoption of open source. Will there be support when you need it — especially for mission critical applications? Are open source systems secure to the point where critical confidential data can be safely protected?

Do the tools for managing open source, open systems, applications development, middleware or virtualization have the same features and ease of use as those found in more expensive competitors?

In this lively roundtable discussion, guests and experts from Red Hat Technologies seek the answers to these and other key questions.

Discussion Point #1 – Opening CIOs' minds about open source

"I don't know a lot about open source. I believe there are more myths than facts."

- CIO roundtable participant

Participants acknowledged that many organizations – including some of those represented around the table – still lacked knowledge about open source technology. Among the comments from roundtable attendees:

- "There's this idea that if you go open source you don't get the support or reliability. It's amazing how much misinformation is out there about open source."
- "One of the major myths about open source is how do I support, manage and control a major integration?"
- "A lot of people don't understand the difference between open source and freeware."

A CIO at the event said his organization worries about how customizable open source would be. Another said concerns about the security of open source still linger within the wider IT community: "There's a misperception that open source is a dangerous platform."

Ultimately, said one participant, today's CIOs value function more than form when considering any technology solution, including open source. As he bluntly put it, he doesn't care whether a product is open source but only wants to know "What can open source do for me as a customer?" A fellow attendee echoed that sentiment by adding, "I'm old school. I still believe form follows function."

Red Hat's Paul Pinkney addressed some of the aforementioned questions and concerns head on:

"What the heck is open source? What does it mean? It's a highly collaborative development model where many people are working together jointly to solve some type of problem. The source code is freely available for everyone to see. That addresses things like quality and security. (Having) more eyes equals more attention to quality and security."

Pinkney's Red Hat colleague Craig Klein added that seven out of the 10 largest healthcare systems in the U.S. run on open source technology and about 90 per cent of all healthcare systems in Canada are running on open source cloud.

"Three or four years ago people thought uh oh, we're going to have security issues," Klein said. "But once people started using (open source) it's caught on like wildfire."

Red Hat Canada GM Luc Villeneuve told participants that his company offers extensive training programs (including on-site and online for greater convenience) to help its customers deploy the technology.

Klein summed up by noting that Red Hat takes what's developed by the open source community and makes it enterprise grade "at a fraction of the cost and with more flexibility" than what's offered by most closed proprietary solutions.

Discussion Point #2 – Healthcare’s unique IT challenges

“Most hospital CEOs are focused on keeping the lights on. So who’s going to bring forward a conversation about open source in that environment?”

- CIO roundtable participant

Everyone in the room agreed that healthcare has its own very unique IT challenges, including specific issues around cost containment, data security and privacy. In addition, healthcare is in the midst of a major shift in focus – and that’s having a huge impact on IT delivery.

“Healthcare is trying to become a lot more patient-centric but it’s tough to get there. Healthcare IT isn’t positioned where it needs to be to do this patient-centered care yet,” said Red Hat’s Craig Klein, a 35-year veteran of healthcare IT.

The CIO of a regional healthcare authority agreed by saying, “I believe our healthcare system here in Canada doesn’t look at the patient at the centre. We look at optimizing our own silo but not designing the system around the patient.”

Among the other healthcare IT issues mentioned by those at the event:

- there are “lots of legacy IT systems” in healthcare so change takes time
- “The whole architecture needs to be cost effective and flexible.”
- “We care about the data and how the data works because that’s how we influence change in the (healthcare) system.”
- “I see many hospitals where they really have no strategy. They jump into implementation.”
- “some of the regulations would make you cry” (i.e., laws governing data privacy and data sovereignty in healthcare)

- cost is crucial but it's not the most important factor in healthcare IT: "I ask the doctors not only if they've adopted (the technology solution) but if they're actually using it. We always look for those kinds of measurements."

Red Hat's Craig Klein acknowledged that, "healthcare (IT) is about five years behind other IT. It's slow, it's bureaucratic and there hasn't been a lot of change in healthcare except in the last three or four years, it's started to explode."

Healthcare systems struggling to play catch up on IT are now dealing with "an explosion of unstructured data and what to do with it," he said.

Klein summarized the steps that many healthcare CIOs are taking to bring their IT up to speed:

- connecting fragmented pieces and processes together through interoperability
- aiming to reduce IT costs so investments can be made in other critical areas like patient care
- "trying to make their IT a lot more flexible" to keep up with the quick pace of IT change today

Discussion Point #3 – The changing role of the CIO

“The problem with making the leap to IT transformation isn't really technology. It's about how we think and do we really understand what's driving the stakeholders.”

- roundtable participant

Besides grappling with separate challenges in IT and healthcare, the participating executives are adapting to a shift in the role, responsibilities and influence of the CIO. Although the aforementioned Gartner study suggests CIOs have more direct influence on C-suite business models, one roundtable attendee said healthcare is sorely lagging behind in this trend.

“Once open source vendors get into the hospitals, they'll realize that the (healthcare) CIOs are not seen as innovators or strategists; they're seen as IT guys.”

Many of the attendees felt that because the healthcare system has historically made cost containment a high priority, the system itself views CIOs as technology procurers rather than business change managers. This has created a healthcare culture that consistently tells CIOs “you can't do that!” whenever they propose major IT transformation, according to one event guest.

“You can't believe how many barriers there are internally,” she said. “How do we change the paradigm to make it easy to do (IT) adoption?”

Her fellow roundtable participants offered some advice for all healthcare CIOs:

- view your position as “an opportunity to influence change and with that will come all the funding” and other resources you need for IT transformation
- “you have to understand what it is you’re influencing” by collecting and analyzing data and measuring outcomes
- presenting a picture of how your own organization links to the wider healthcare ecosystem is a good way to open up new IT funding streams from your CEO

Craig Klein of Red Hat said today’s healthcare CIOs can make a stronger case to their CEOs by focusing on how technology (including open source) can help them, not just how much money it will save them.

“What’s the problem they’re looking to solve and what’s the technology to get them there? That’s something that’ll get people’s interest,” Klein said.

One participant summarized it succinctly as “more of a human change management issue” than a technology issue.

Key takeaways

Participants concluded that:

- Although healthcare CIOs still have a learning curve when it comes to open source, many more are adopting it as they realize the flexibility, scalability, security, performance, ease of deployment and cost benefits it offers.
- Healthcare has many unique IT challenges – and open source can play a key role in meeting them.
- Healthcare CIOs advocating IT transformation should emphasize the solutions open source can offer their CEOs, not just the cost savings.