



QUARDEV

Integrated Software Solutions

Quardev Monthly

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Welcome!

Welcome to the Quardev Monthly - the new version of our newsletter, now published monthly instead of quarterly. We look forward to sharing insights and helpful information in the areas where we know a thing or two - testing, quality assurance, technical writing and documentation, project management, and consulting.

This month we have a double issue and are highlighting IT and Testing. Included is an article by Ian Botts about Virtualization and an article by Jonathan Warshaw on Green IT.

Enjoy the newsletter with our compliments and please contact us with questions, comments, or article ideas.

-The Quardev Crew!!

Virtualization: how it can help save you time and money

Ian Botts, Senior Test Manager, Quardev, Inc.

As a full service quality assurance and software testing facility, we have employed virtualization as a key strategy for some time. However, recently we moved to using the latest Microsoft Virtualization Server and are overwhelmingly excited about the potential of this technology to enhance our business. Of course, we are excited about how the use of virtualization can save us money in hardware and software procurement and also the reduced IT setup and maintenance costs, including better disaster recovery planning and enhancing our security. Beyond that, the use of virtualization enables us to become more creative in providing solutions for our clients within each unique project. This in turn creates a more convenient and flexible working relationship between our Quardev team and our clients.

What is Virtualization?

At its simplest, virtualization is technology that shifts the traditional one-to-one correlation between computer hardware and the software that runs on it. Virtualization software enables the creation of multiple complete computing environments on a single set of hardware. This shift has been made possible by the newer systems with multi-core processors and increased memory capacities and opens up a wide range of business applications and opportunities.

In our context, as an IT Services company, it means that we can not only set up numerous secure client/server-centric environments for use while engaged in testing desktop, server or Web applications, but we can save those environments to be called upon at another time, and within minutes, or even seconds, our project team can access these environments remotely or via any desktop

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Virtualization, Continued

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or laptop in our lab. Additionally, each team member that has a specific snapshot saved on the server can rely on their settings and preferences to persist, regardless of the actual machine used to log onto the network – remotely or onsite. This provides our project team great flexibility and adaptability for the ever-changing needs of a project.

Key Benefits

There are a number of reasons why the move to virtualization makes sense, and this varies from company to company. The following are a few of the benefits we have experienced:

- Flexibility (ability to configure numerous client environments, hardware settings, network virtualization, saved snapshots for later use)
- Time Savings (faster machine setup and configuration, ability to quickly roll back to previous snapshots)

- Scalability (create larger client-server environments with less hardware, increased automation benefits)
- Cost (better use of hardware, less power consumption, reduced setup times)
- Green Technology (reduced energy consumption, less to recycle or dump)

Conclusion

For us, the long-term and short-term cost reductions that we've seen in power costs, system maintenance, and lab real estate are promising, but even more so is how the use of virtualization is enabling us to remain competitive and progressive in our service offerings. We have a culture of constantly pushing to find and use technologies that save money and time for us and our clients. Virtualization has proved its benefits and opens up numerous opportunities to expand its use in the future in new ways that we haven't discovered yet.

Thinking about a Green IT Strategy

By Jonathan Warshaw, Business Development Manager, Quardev, Inc.

When contemplating a Green IT Strategy for your organization, there are four major points that need to be considered: ROI, technical need, new regulations and compliance issues, and the overall impact on the corporate image.

Technical Need

The size of the firm, type of business, legacy investment, and moral drivers to go "Green" will all determine the order of priority, as well as if all four will be considered and/or implemented and in what time frame.

A smaller company may have social issues in mind as they change light bulbs to more energy efficient florescent, request that computers go into sleep mode when not in use, and have clearly marked recyclable bins for the employee base to use. As an added benefit, this may reduce overall energy costs, but the main

driver is still social activism. They may not be concerned with brand image or compliance, but still have been caught up in the Green Wave that is all the buzz.

Larger organizations do not have the same luxuries in choice. ROI is of critical importance to both their profits and shareholders, compliance standards and the need to make technical decisions are mission critical, and the overall brand awareness could mean the difference between a product sold or one lost to a more "hip" competitor.

ROI

According to the Garter Research Group, when evaluating ROI, *"Green IT projects that are tenable in an economically constrained environment should provide positive financial ROI within 18 months, or should support specific strategic goals aimed at improving enterprise sustainability, if they exist."* (27th

Thinking about a Green IT Strategy, Continued

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Feb 2009). By adhering to this strategy, decision makers can weed through the hype of Green and concentrate on only the projects that will be measurable in a positive way on their investment.

Technical need may force a deviation in the 18 month ROI strategy; however, if at all possible, when investing in new technology, there are a host of Green alternatives that should be considered. This approach will not only contribute to the bottom line, it can and should be exploited for current or future marketing campaigns which project a Green Image. Energy conservative hardware and network enhancements allowing for telecommuting or enhanced web conferencing reducing travel are just two examples.

According to Dave Riggs, senior vice president of federal solutions at the QinetiQ North America, *"an internal analysis concluded that a virtualized environment would reduce carbon emissions by 66 percent and needed work space by 68 percent."* (Green initiatives begin to make business sense, *Washington Technology*. March 2009).

Regulations & Compliance Issues

New government regulations and compliance standards are mostly expressed through standards or code of conducts that enterprises can take or leave. Even though there may not be the weight of law behind most Green Standards, a decision to ignore them could prove as detrimental to a corporate image as the decision to adhere to them could be beneficial. A successful Green strategy should include marketing early in the process to capitalize on public sentiment and influence "Joe Consumer's" decision making process when considering a firm's products or services.

Action Plan

So what should one do when chartered with creating and implementing a Green IT solution? The first and foremost should be to define your company's position on environmental issues. It is easy to say you care about the environment, but another thing to have a policy which can be communicated both internally and externally as needed.

Once the policy is in place, the next step would be to conduct an assessment and create a starting point snapshot enabling you to benchmark improvements as they are put in place. Also consider the cost of doing nothing for all the reasons discussed earlier. From a strictly financial standpoint, and depending upon your company's size and structure, it may prove challenging to cost justify many of the ideas you are taking into account.

The last step would be to identify the low-hanging Green fruit and begin with those improvements which provide the most immediate benefits. Some examples are; implementing policies that create behavioral changes among staff, data center power management, changing the state of equipment that is not in use from always on to standby ready, and challenging your vendors to provide solutions that are more environmentally in line with your corporate Green Policy.

Conclusion

With all the notoriety surrounding the Green Movement, corporate and government leaders are finding they must act, if for no other reason than to say they have a plan. Even though no one solution is right for every organization, and the motivation to go Green may be different in each case, the Greening of Business is here to stay and is only now revving up to full throttle.

"I think the environment should be put in the category of our national security. Defense of our resources is just as important as defense abroad. Otherwise what is there to defend?"

-Robert Redford, Yosemite National Park dedication, 1985.