

# MID-RANGE NEWS

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## TURNING GREEN

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# MID-RANGE NEWS

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# A Word From Dan ...

## Bull 'booll n.

### Definition:

- a.) An adult male bovine mammal
- b.) What people who have a revenue quota will tell you to try to get you to buy something

### Two Words From Dan: No Bull

**Definition:** What people give you when they are looking for a mutually profitable relationship that will span many years

**Green Bull:** See below.



### Greening your IT environment is easy.

**No it isn't.** Simply upgrading and reducing your number of old servers, storage, and HVAC will help but it has to be done in such a way that you can measure your reductions in power, software licenses etc. to calculate hard savings. It's about reducing power but it's also about reducing other costs and recovering capital outlays in a reasonable period of time.

### Ethanol is good for the environment.

**No it isn't.** Corn based ethanol has only served to increase the price of food and fuel and make corn farmers richer. It is helping to push people around the world (particularly in parts of Mexico) to the starvation point. If ethanol is part of the answer it lies in sugar cane based ethanol (primarily from Brazil) that won't make it to market until someone stands up to the U.S. farm lobby.

### Nuclear power is bad.

**No it isn't.** It's clean. It's green and it's safe. Nuclear power is being used now and it will experience a resurgence in the future because people will not give up what they have (cars, heat, a/c, travel) and "go backwards." The demand for fossil fuels will only increase. So either use nuclear to help produce oil (think what of a couple of big nuclear plants in northern Alberta would do for the oil sands industry) or use it to charge batteries in cars. At this point and for the next 20-40 years it is the only viable, wide scale, reasonably priced source of power outside of fossil fuels. Go long on uranium.

### Meat is bad for the environment.

**You are correct.** According to the United Nations "cattle rearing generates more global warming greenhouse gases, as measured in CO2 equivalent, than transportation (cars and trucks)" and it also adds tons of methane, ammonia, and nitrous oxide to the environment. Or as they say at the vegetarian store "No moo is good moo."



### Summary:

1. Green your IT the right way.
2. Stop using ethanol.
3. Fire up the nukes.
4. Have dinner with a vegetarian.

## Would you like some \$\$\$\$\$ to go with that new server Ma'am?

If you are a PowerStream ([www.powerstream.ca](http://www.powerstream.ca)) customer you can get some. PowerStream runs a Data Centre Improvement Plan (DCIP) that not only gives you money to upgrade to servers that use less power but also helps you to identify other IT assets (HVAC, lighting, etc.) that you can adjust to bring down your electricity bills.

**We're not making this up. This is a utility that gives you money to use less electricity. Seriously. We wouldn't kid you about something like this.**

Call us at 905-940-1814 or e-mail us at [sales@midrange.ca](mailto:sales@midrange.ca) and we'll get you the details.

Dan Duffy - President

Zdy Orlinski - Secretary Treasurer

# Being Green

By David van Geilswyk

**T**his article is important to you, your family, and your friends. Please let me explain why. (Yes it's always about "you"—validation at last.) Green is the new executive color. Forget dark blue. Green has found its way into the steering committee meetings. CFO's love green, because it saves money (also thought of as green), which is a win-win. If CEOs have green, they love it. If they don't, they hate it, because they don't have it. Since green is so important to your executives, then it should also be important to you. How else can you better demonstrate your value than to help them achieve their objectives, help them to be green?

Green is for the environment. It makes the world a better place to live in—for your friends, your family, for yourself. I know, you are already doing your part. You recycle at home, in the office, and everywhere else. (Well at least when you can find recycling bins.) If it was possible you would take a bicycle to work—if the commute was not quite as far, the weather was a little better, and it was not as dangerous (the cars are bad enough, but the buses will kill you!) I know you work in IT. What difference can you make? The answer is you can make a substantial difference. Let me explain how...

## The Data Center

Over 85% of data centers were built more than 7 years ago. In the past 10 years the number of servers in the computer room is 6 times greater.

Storage utilization for the same period is up almost 70%. With the use of BladeCenters, power usage per rack has gone from 2-3kW per rack to 20-30kW per rack. This is a direct result of inexpensive computing and has led to the three key facility issues we see today. They are:

1. Excessive Heat
2. Insufficient Power
3. Shortage of Floor Space

We are at a point where power and cooling are now exceeding server spending. Take a look at a fair-sized computer room of 25,000 square feet. The cost of power to run that data center for 1 year is about \$2.6 million. Cost savings outlined in this document can reduce that annual cost by 50%. That is significant reduction and is the equivalent of taking 1,300 automobiles off the road.

## Computer Room Infrastructure

Technology has advanced significantly in the past 10 years; this includes our UPS and HVAC systems. These systems are in most cases as old as the computer rooms and we get an advantage in replacing them with updated systems. By replacing these systems we gain the efficiencies of the newer technology plus a reduction in power consumption. For example, using a new HVAC system can reduce operating costs by 45%. By just switching to water from air there is a savings of 15% in energy costs.



## Computer Power Usage

We all know that computers use power and servers use even more power due to the redundancy that is built into them. Most of the power used in a system comes from only a few components. They are as follows:

- 44% – AC to DC transitions, DC to DC deliveries, and fans for air movement
- 30% – processor
- 11% – memory
- 08% – hard disk



David van Geilswyk

In the past couple of years, significant advancements have been made, including a CPU power reduction of 15% with a performance increase of 35%. Memory now has 3 times the density, is 5 times faster, and requires 80% less power. Power supplies have also benefitted from increased efficiencies as they convert AC to DC. Older power supplies were only 65 – 75% efficient and for 1,000W of power they gave off 300W in heat. New power supplies are 90% efficient and give off only 90W of heat by comparison.

## Server Virtualization

Typical CPU utilization rates on Intel servers can be quite low. I know there are a few servers which never seem to have enough headroom in terms of processing power, but most servers in the computer room are under utilized. In fact, on average most servers run at about 10% CPU utilization. So if we took 4 servers running at about 10% using a total power consumption of 8kW and did nothing more than use virtualization to consolidate them onto one system, that system would run at 50% (the additional 10% used by the virtualization software) and you would reduce your power consumption by almost 6kW.

## Being Green

There is an old saying that you cannot manage what you don't measure. The trick is to monitor and manage. How much does it cost to power the computer room as part of the overall facility? Does this include the HVAC? Use power management tools such as IBM Director's Power Executive and those of your UPS

to diagnose and understand your power utilization. This will allow you to measure your improvements. You can take it a step further by forming a *green task force*. Look at the overall power utilization at your facility. You can review efficiencies that can be gained through upgrades and the use of new cooling technologies.

Many hydro providers now provide serious rebates to fund the reduction of power consumption. (See page 2 of this issue for more information.) These rebates are available to both large, medium, and small companies for demonstrated power reduction. If you can measure and manage your power utilization to half of what it is, and demonstrate this, you will have once again done your part and given green to your executives—and green is the new executive color. **M-R**

*David van Geilswyk has over 15 years of IT experience on the System i5 iSeries/400 platform and specializes in Back-Up and Recovery, BRMS, High Availability, Systems Security, and Logical Partitioning. David can be reached at: [dvg@midrange.ca](mailto:dvg@midrange.ca).*

## Want to really green your IT and save on costs?

# Outsource at Mid-Range

### What will you save? The 3 P's:

1. **Save On Power.** We will be running your equipment so you'll use less power for cooling, heating, lights, powering the actual equipment, and so on.

### 2. Save On People:

Why not promote your talented staff to do more valuable functions within your company and leave the computer operations to us? (We can have one person do the job of many and pass on some of the savings to you.)

### 3. Save on Prescriptions:

For the endless headaches associated with staff turnover, downtime, vacation coverage, technology obsolescence, education costs, power outages, dealing with multiple vendors, and so on. **M-R**





**Doing business without  
a disaster recovery plan  
is like jumping out of a plane  
without a backup parachute**

**You could land  
In big trouble**



**I**t's a leap of faith to operate without a disaster recovery plan. Because sooner or later, disasters happen. Remember the blackout of August 14, 2003? It was a disaster for many organizations, but not for clients of Mid-Range, who suffered zero customer data loss during the power interruption. They were protected because we have some of the best disaster recovery experts in the business, two hot sites on raised floors, and two back-up power sources.

Call us today if you need a disaster recovery plan, a disaster recovery test (we have done hundreds), a hot-site contract or a location for a redundant server. It's work we do every day for forward-thinking corporations, municipalities and hydro commissions. What about you?

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# Click IT. Read IT. Get IT.

By Dan Duffy

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## Solve IT. for Less

SOLVE IT. FOR LESS

**Servers**

Looking for a better server?

Learn more

**Disaster Recovery**

It's 11 pm. Do you know where your data is?

Learn more

**Outsourcing**

Our Geeks are better than your Geeks.

Learn more

**JD Edwards**

Looking for the ideal JD Edwards partner?

Learn more

### Why it pays to choose Mid-Range

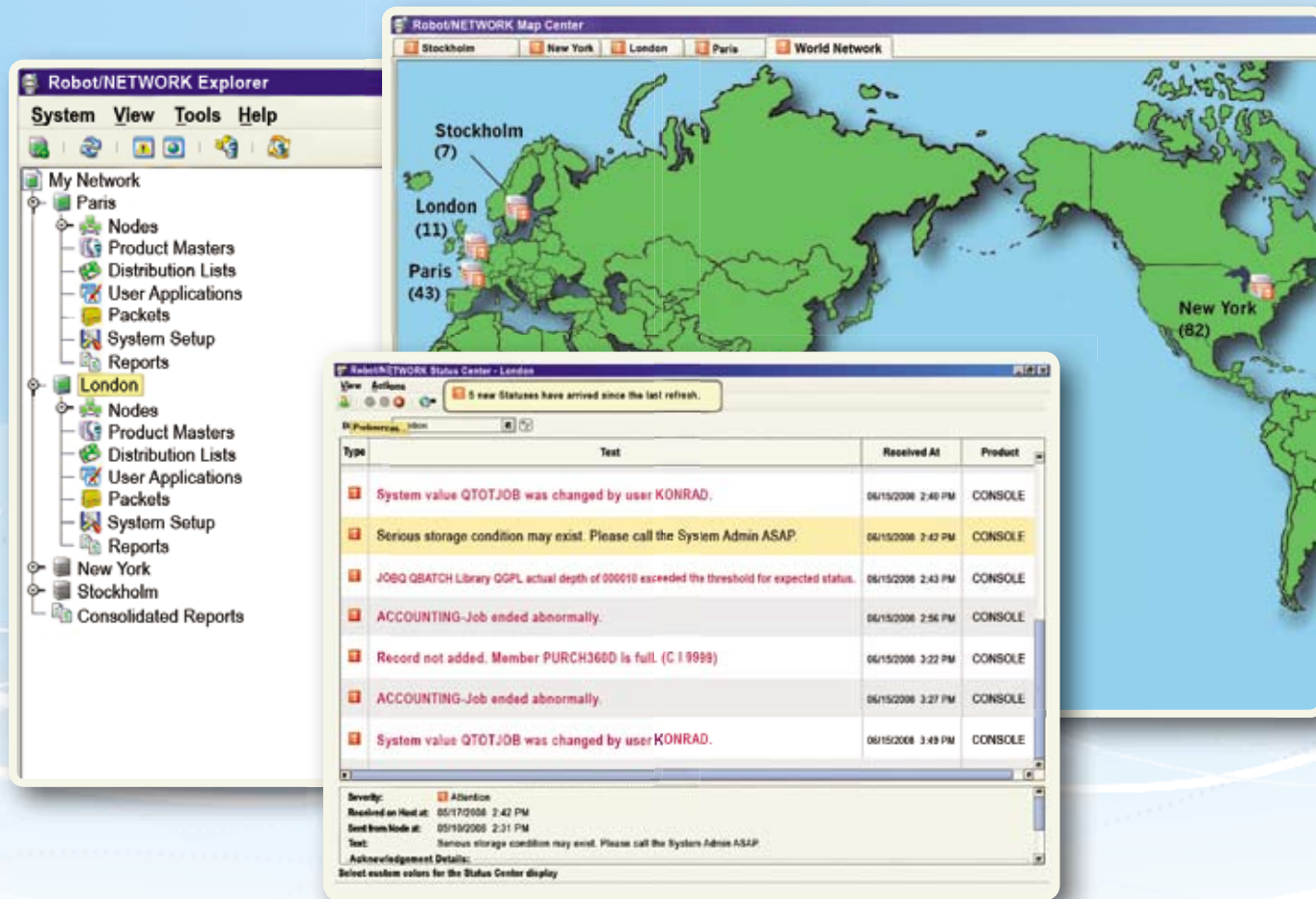
Leading organizations don't come to Mid-Range because they want *more IT*. They come to us because they want *more from their IT*. And that's exactly what we deliver whether you need disaster recovery, managed services, on-site or remote support of your IBM servers and infrastructure environment, hosting and outsourcing, Oracle JD Edwards application services, system analysis, implementation and migration, IBM storage and new or refurbished servers.

**W**hen was the last time you visited the Mid-Range website? ([www.midrange.ca](http://www.midrange.ca)) Give it a click and you will see two things—our site has an all-new look and, more important, there is now a much more complete review of the products and services we deliver to help our clients solve their IT challenges and opportunities for less.

We understand that you are not looking for more IT. You are looking for ways to get more from your IT. And that's exactly what we deliver whether you need disaster recovery, managed services, on-site or remote support of your IBM servers and infrastructure environment, hosting and outsourcing, Oracle JD Edwards application services, system analysis, implementation and migration, IBM storage, and new or refurbished servers.

Get the whole story by visiting our new site today. And, yes, that is me featured here and there on the web pages...

**M-R**



# Robot/CONSOLE + Robot/NETWORK

## The Modern View of System i Network Management

### AUTOMATE MESSAGE & RESOURCE MANAGEMENT

Robot/CONSOLE,® the message, resource, and log management software from Help/Systems, is a complete message management solution for your networked systems. Robot/CONSOLE automates the process of managing your IBM® System i™ messages, while monitoring critical System i resources such as lines, subsystems, devices, servers, job queues, and system logs. Robot/CONSOLE responds automatically to messages so that you can automate anything across your network. And, Robot/CONSOLE can escalate any issue to the modern graphical Robot/NETWORK® Status Center for an immediate response. The result—complete, automated, centralized message and resource monitoring across your entire System i network.

### MANAGE YOUR SYSTEM i NETWORK AT-A-GLANCE

Robot/NETWORK, the System i network management software, lets you troubleshoot and manage your entire network of System i servers and partitions from a single, easy-to-use graphical display. The Robot/NETWORK Explorer displays your systems in a tree, complete with drop-down menu options, while the Robot/NETWORK Map Center offers a graphical view of your entire network, or a portion of it. When Robot/CONSOLE (or any other System i software) has a problem that needs resolution, just click on the system icon to display the Robot/NETWORK Status Center and respond to the situation.

### CONTROL YOUR ENTIRE SYSTEM i WORLD

With Robot/CONSOLE and Robot/NETWORK at work, your System i world is always under control. Join the modern world of satisfied Robot users to understand just how easy it is to manage a System i network. Call us at **1-800-328-1000** and ask for your **FREE** Robot/NETWORK and Robot/CONSOLE Information Kit. Or, visit our Web site at [www.helpsystems.com/modern-view](http://www.helpsystems.com/modern-view) for more information, or to request a **FREE** 30-day product trial.



solve IT.  
for Less™



# Mid-Range makes managed CNC this easy

Why build your own Oracle JD Edwards EnterpriseOne team when you can save time and money by taking advantage of the remotely managed Configurable Network Computing (CNC) services offered by Mid-Range. Nobody offers you more JD Edwards EnterpriseOne expertise and services, including database administration, application monitoring and server administration.

You also have the peace of mind that comes with knowing our industry leading JD Edwards EnterpriseOne service is backed with a Help Desk Support package that includes email and telephone (1-800), primary and backup contact and daily or weekly scheduled tasks. You can even have 24/7 support, if required.

## **Request a detailed cost analysis to compare the true cost of the in-house and outsourcing options**

Get started by requesting a detailed cost analysis to justify your planned investment. It's an important step because it provides a true comparison of the in-house and outsourcing options. Moreover, once you take into account the real cost of building and maintaining your own Oracle JD Edwards EnterpriseOne team, the outsourcing option becomes very attractive.

Bottom Line: Outsourcing your Managed CNC to Mid-Range can cost you up to 50% less than an in-house program.

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*Want more from your IT? Call Mid-Range and solve IT for less.*  
Dan Duffy, President –Mid-Range

## **Available CNC services**

- Data source maintenance
- Full client administration
- Menu and task maintenance
- OCM mappings
- Object change management
- Object promotion
- World/EnterpriseOne error resolution
- Error logs management
- World/EnterpriseOne user ID maintenance

## **Additional Mid-Range services**

- Serialized object generation
- Package management (Builds, deployment and JAS generation)
- Path code and environment maintenance
- Submitted job maintenance
- Terminal/Citrix service maintenance
- Version administration
- WebSphere administration for EnterpriseOne
- Disk space/utilization
- Log files
- Database setup
- Database connectivity
- WebSphere and HTTP server setup
- Disaster recovery
- High availability planning and implementation
- World/EnterpriseOne security work bench designs
- CNC training
- World/EnterpriseOne service pack installation
- World/EnterpriseOne updates and upgrades
- Oracle/SQL/DB2 database tuning
- Menu maintenance
- Temporary CNC onsite support