Welcome to

CANADA'S GREENEST DATA CENTRE

Environmental responsibility. Business benefit$.

A NEW STANDARD IN DATA CENTRES

NetPulse introduces a new standard in data centre in Markham, Ontario, the technology capital of Canada. This state-of-the-art facility has been specially designed so that it can be tailored to our clients' specific requirements for power, space, access, security and support.

NetPulse's unique facility

- ✓ Is the only Data Centre in Canada to be Tier III Certified for reliability by the Uptime Institute
- ✓ Can be configured into private suites designed to specific client requirements.
- ✓ Offers unprecedented levels of power and cooling for high density equipment: up to 1.5 kW per sq. foot with immediate availability for growth.
- ✓ Saves over 35,000 tons of GHG emissions each year, by using on-site tri-generation technology.

netpulse
Outsource with complete confidence

Branham300 ISO 9001 ITIL TIER III DESIGN

95 Apple Creek Blvd. Markham, ON L3R1C7 Toll free: 1-877-9-NPULSE (1-877-967-8573) Fax: 416-214-6238 Email: info@netpulsegroup.ca www.netpulsegroup.ca

OUR GREEN STRATEGY

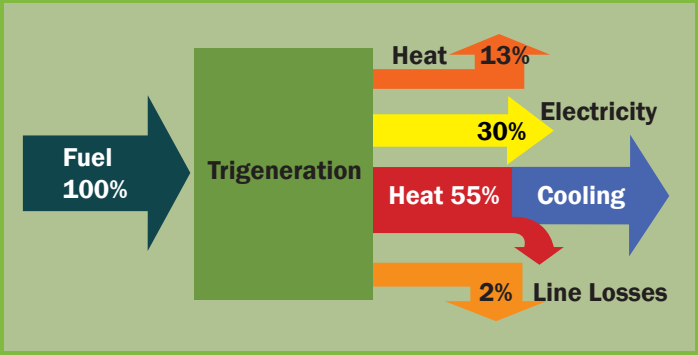
NetPulse's innovative approach to power and cooling results in an enormous reduction in total power used. This greatly decreases the amount of greenhouse gases which would, otherwise, have been generated by Ontario's coal based generation plants to power our data centre via the grid.

Our energy conservation strategy is based on tri-generation: on-site power generation, cooling and heating:

Generate own electricity, on site: using the latest generation of gas micro-turbines, we completely eliminated our reliance on the electricity grid. The small, high-efficiency turbines are quiet and clean-burning. Approved by the California Air Resources Board (CARB), they meet the most stringent environmental control standards in the world.

Run absorption chillers using waste heat from the gas turbines. The absorption chillers provide all of the data centre's cooling needs, but use only 18% of the power of traditional cooling systems. In colder months, we switch to "free cooling" systems which use even lower amounts of power. Compressor based cooling is available as backup 100% of the time.

Heat the office areas and generate hot water using turbine heat.



How much power do data centres *really* consume?

The energy used by data centers in the US was about 61 billion kilowatt-hours (kWh) in 2006, equivalent to 1.5 percent of the total electricity consumed in the entire country! This is more than the power consumed by all color television sets and equal to the energy used by 5.8 million U.S. households.

The energy used by servers and data centers more than doubled between 2000 and 2006; based on current trends, this will double, again, by 2011.

The cooling and power infrastructure in data centers accounts for half the total electricity consumed. Only half the power entering reaches the computers.

RESULTS

NetPulse's data centre would, under normal circumstances, use 6.0 mW of power. Of this, 3.0 mW would be used simply to cool the facility. By using turbine-heat-driven absorption chillers, NetPulse's energy conservation results in over 35,000 tons of greenhouse gas (GHG) emissions being eliminated each year:

	Using traditional technologies		Using tri-generation		GHG Savings
	Power[i]	GHG[ii]	Power[iii]	GHG[iii]	
By computers	26,280	27,594	26,280	14,191	13,403
For cooling	26,280	27,594	5,256	2,838	24,756
Total	**52,560**	**55,188**	**31,536**	**17,029**	**38,159**

No Compromise On Quality

Uptime in data centres is vital and these savings are achieved with absolutely no loss of reliability or safety. The entire data centre is configured to Uptime Institute Tier III standards for concurrent maintainability. Complete, N+1 redundancy is built into every system and component: power, electrical systems, chilling units, HVAC, safety, fire-suppression and Internet access. Key services such as power and cooling incorporate three levels of redundant back-up.

TIER III DESIGN™
Pathway Communications & NetPulse Services Green Datacenter
February 22, 2010
UPTIME INSTITUTE CERTIFIED

While this environmentally conscious approach has meant a large increase in costs, the benefits are both worthwhile and significant:

- ✓ Substantial, recurring savings in electricity used for cooling
- ✓ An increase in effective power-usage efficiency from 20% to 85%
- ✓ Reduction in greenhouse gas emissions
- ✓ Increased reliability: the gas supply system is significantly more reliable than the electric grid
- ✓ Real and immediate cost savings - shared with our clients.
- ✓ Setting a new standard in energy conservation which other data centres can follow with confidence.
- ✓ Supporting the Ontario government's goals of reducing reliance on coal-based power generation.
- ✓ Furthering the objectives of the new Green Energy Act of 2009
- ✓ Helping Enbridge Gas, PowerStream, the OPA and the City of Markham advance their conservation goals.

---

[i] Environmental Commissioner of Ontario report (Finding a Vision for Change: Annual Greenhouse Gas Progress Report 2008/2009), December 8, 2009. "The government is not on track to meet either its 2014 or 2020 GHG emission reduction targets." "The government will miss its targets by 15 Mt and 35 Mt in 2014 and 2020, respectively" and ""Most of the forecasted 34.4 Mt reductions by 2014 are expected to come from one initiative: the phase-out of coal at the four remaining coal plants."

[ii] One mWh = Megawatt hour or 1000 kW x hours

[iii] The Canadian Energy Research Institute (CERI) conducted a Life-Cycle Analysis (LCA) to identify and analyze current and potential life cycle environmental impacts (GHG emission, other air pollutants, water pollutants and radiation) of base load electricity generation from nuclear, coal and natural gas in Ontario. The complete life cycle of coal in Ontario results in the emissions of 1050 g/kWh, mostly in the burning of coal in the power plant. The complete life cycle of natural gas in Ontario to make electricity creates emissions of 540 g/kWh, mostly in the burning of natural gas in the power plant.

[iv] One metric ton = 1000Kg.

Whether you need secure, private space for your vital I.T. infrastructure or need to co-locate your server cabinets, NetPulse will tailor the right solution to your exacting requirements.

Private Data Suites

The ideal solution for firms whose core IT infrastructure demands distinctive power, space, cooling or other service requirements. NetPulse's Private Data Suites obviate the need to build, manage and maintain your own data centre or colocation facility. Building and operating a data centre is an expensive time-consuming and specialised endeavour. Costs for a fully-equipped, Tier III level server colocation room range between $2,000 and $4,000 per usable square foot. Thus, a 500 sq. ft. server room may require an investment in excess of $1,500,000 and many companies do not see making investments of this magnitude, worthwhile in a leased facility.

NetPulse will work with you to tailor a high-quality, resilient data centre for your specialized IT environment, configured to your exact requirements - with no capital investment required. At your option, we will assist with network and infrastructure design, migration, transition and implementation. The scope of our activities includes:

- Server room customization and cabling
- Upstream and MPLS service provider selection and liaison
- Hardware selection, purchase and deployment
- Equipment migration, re-configuration and installation
- Network monitoring and security management
- Server management and data backup
- Disaster recovery planning and implementation
- Asset tracking, trends and reports
- SLA development
- Application management and more

With your own, private data suite you have access to a secure, high-uptime environment for your vital business equipment and applications. You are free to focus your energy and resources on other strategic and operational matters, while we manage your IT resources at your private colocation facility.

Server Co-location

Reduce your infrastructure, support and connectivity costs by up to 80% by placing your servers and business systems in our secure, climate controlled data centre.

- Various server cabinet sizes starting with shared cabinets
- High speed Internet access, scalable to gigabit speeds
- A wide range of data transfer pricing options
- Tier III level network availability*
- Remote reboot and restart services
- On-demand access to your co-located server(s)
- 24/7 technical support and onsite assistance
- A complete range of supplementary managed services from security to data back-up

Managed Services

NetPulse was an early pioneer of managed services in Canada. Our managed services, offer you the assurance that your infrastructure and applications receive the same care and attention that they would have received had they been managed in-house by your own I.T. staff.

Our managed services include:

- Use of a Tier III certified data centre for maximum uptime
- Enterprise network firewalls
- Real time intrusion detection and prevention
- Data backup and restoration to schedule; tape rotation and off-site storage
- Monitoring of server and network elements using custom SNMP variables; e-mail and voice alerts
- Security patch management and service pack deployment
- Disaster recovery facilities; hot spare availability
- Remote hands; cabling, reboot, configuration
- Detailed statistics and reports
- Systems administration
- Application management and support

With managed services from NetPulse, you are assured that our qualified and experienced network and systems teams are caring for your applications 24 hours a day, 365 days a year.

* Based on Uptime Institute standards, the highest uptime guarantee, even for a Tier IV facility, is 99.995%. Claims of "100% uptime" are likely to be spurious, untenable and misleading.

Your custom-tailored
GREEN DATA CENTRE

Operating a corporate data centre in a regular commercial or office building inevitably means running into serious limitations of power, cooling and space. NetPulse's new, ultra-modern, Tier III data centre is located in a company- own building which has been designed, from the ground up, to house an energy-efficient data centre. It presents clients an exceptional opportunity to obtain custom data suites adapted to their specific needs. And, because NetPulse generates its own electricity on site, we offer you the complete assurance that power and space will always be available to meet your short-term or permanent growth needs.

FEATURES

- Tier III certified facility, comprehensively designed for maximum reliability and uptime
- Abundant power, immediately available on demand and for growth
- Facility-wide availability of in-rack, liquid-cooling for high-density environments
- Private, custom data suites with controlled visibility and access
- UPS, switchgear, control systems backup diesel generators
- Extended on-site fuel storage
- Raised floor with physically segregated power and cooling systems
- Multiple upstream data and internet connections to Tier 1 carriers and providers
- Triple-redundant power and climate control systems
- Floor leak and heat detectors
- Gas-based, waterless fire suppression
- Full gigabit Ethernet internal switching using enterprise Cisco devices system
- Separate mirror and disaster recovery sites in Toronto and Montreal
- All systems sourced from world class manufacturers
- Complete physical security: perimeter alarms, biometric authentication, video surveillance
- 24.7.365 network monitoring from dual Network Operations Centers

About NetPulse

NetPulse Services is part of the Pathway Group of companies. The Pathway Group consists of NetPulse Services, Pathway Communications, CiteNet Internet and Teliuvo Inc. The companies, collectively, offer a wide range of Internet, data, managed IT, Business Process Outsourcing and telephony solutions to over three thousand business customers in Canada and the US. We employ over a hundred and fifty highly qualified and experienced technical staff in Toronto, Montreal, Pune (India) and Timisoara (Romania).

netpulse
Outsource with complete confidence

Branham300 ISO 9001 2008 TIER III DESIGN
ITIL

95 Apple Creek Blvd. Markham, ON L3R1C7 Toll free: 1-877-9-NPULSE (1-877-967-8573) Fax: 416-214-6238 Email: info@netpulsegroup.ca www.netpulsegroup.ca