

# Make Your IT Troubles Disappear... Into The Cloud



Your Own Secure Cloud from Pathway



## Pathway's Secure Cloud for *your* IT needs

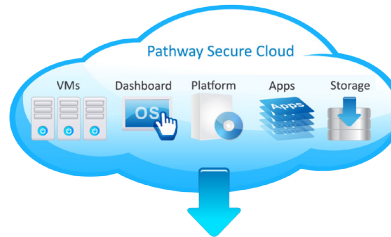


**Forget the hassles of buying, installing and managing IT systems for your business. With Pathway's Secure Cloud Service, you enjoy the security, efficiency and convenience of the best equipment and the latest technology with no capital investments.**

We set up your secure, high-performance, private cloud, create secure connections to your office and help you quickly migrate your applications to the cloud. With no downtime risk. You now have access to high-efficiency servers, SAN storage, security systems, backup and network devices without spending a single dollar on buying equipment. Our Engineers ensure that all systems are tailored to your specific needs. And you have the safety and reliability of Canada's only Tier III Certified Data Centre. When you see how much time, effort and costs you will save, you'll wonder why you didn't consider Pathway's Secure Cloud Service before.

### What are the benefits of using Pathway's Secure Cloud Service?

- **No capital costs:** Save on buying servers, SANs, firewalls and software.
- **The latest equipment:** Rest assured that we use only world class suppliers such as HP, Dell, Brocade, Cisco and Compellent. Our inventory is constantly refreshed and expanded.
- **Reliability and uptime:** Your applications are always available: never worry about lost productivity or customer complaints because your systems are down. You receive unmatched uptime in Canada's only Tier III Certified Data Centre.
- **Efficiency:** Save costs by provisioning only those resources that you actually use. Resources within cloud systems are utilized at over 80% versus 20% for standalone equipment.
- **Flexibility:** Add capacity, instantly, whenever you need to grow.
- **Ease of management:** Reduce time and effort. Real-time system management tools, reports and dashboards give you exceptional visibility into your systems and make administration 100% easier.
- **Security:** Your applications are rigidly separated from other systems and protected 24 hours a day by firewalls and IDS/IPS systems; our Engineers monitor your systems round-the-clock. Your data is stored using 256 bit encryption.
- **Safety:** You will never lose your data and your private information is always 100% secure. Seamless failover, high-availability, encrypted storage, multi-location environments, full backup and disaster recovery. These are just some of the technologies we employ transparently to ensure the safety of your valuable information.
- **Ease of Access:** You have access to your information any time of the day or night.
- **Convenience:** Need help with an important issue? One phone call and it's done. Unlike other Cloud Service Providers, Pathway has been offering businesses such as yours, a full suite of ISO certified managed connectivity, systems administration and application support for over 15 years.



### There must be something to Cloud Computing...!



Cloud computing got a boost in February 2011 when Vivek Kundra, the Chief Information Officer for the U.S. Federal Government, announced the "Cloud First" policy. This requires federal agencies to identify at least three in-house IT functions they can migrate to the cloud, and then move at least one of those services to a cloud provider (either private or government) within the next year.

Kundra has set an aggressive target of closing more than 800 of the 2,100 federal government data centers over the next four years with a view to reduce the US federal government's \$80 billion annual IT budget.

There are considerable benefits of outsourcing certain IT functions using a public, private, or hybrid cloud. Many government agencies, including NASA, Department of the Army, and the Securities and Exchange Commission are ahead of the game having already adopted cloud services and others are working quickly to put a migration strategy in place.

## What's involved in setting all this up?

Setting up your Secure Cloud with Pathway is simple. You tell us what you need to support your business applications and services. Our Engineers help you choose the most cost-effective system configuration and will set up your secure cloud infrastructure in less than four hours, no matter how large or complex your requirements. We minimize your transition risk by helping you migrate your applications seamlessly into the cloud and we're available to help you manage your servers and applications. Feel rest assured in the knowledge that your cloud systems are being cared for by a team of highly trained Pathway Engineers every hour of the day.

## PATHWAY SECURE CLOUD PRODUCT FEATURES

<h3>STANDARD</h3> <p><i>Pathway's Secure Cloud Services include:</i></p> <ul style="list-style-type: none"> <li>• Hypervisors: Citrix Xen</li> <li>• Servers on-demand</li> <li>• Linux: multiple versions</li> <li>• Windows 2003/2008</li> <li>• Reserved Storage Area Network - no oversubscription</li> <li>• Reserved RAM - no oversubscription</li> <li>• Support for multiple public IP addresses</li> <li>• Available forward and reverse DNS service</li> <li>• Domain Name Services; domain registration</li> <li>• Internet bandwidth</li> <li>• Unlimited bandwidth within the data centre network (local traffic)</li> <li>• Management interface and real-time reports</li> <li>• Rapid provisioning and scaling (upwards) on demand</li> <li>• Proactive maintenance, updates and patches on all systems</li> <li>• Continuous environment monitoring</li> <li>• Use of world-class equipment</li> <li>• Open Source APIs</li> <li>• Automated billing and self-serve account review</li> <li>• Dedicated Account Manager</li> </ul>	<h3>EQUIPMENT INSTALLED AND AVAILABLE</h3> <ul style="list-style-type: none"> <li>• Servers: High capacity Dell servers with multi-core processors</li> <li>• Storage Area Network: Compellent</li> <li>• Cisco network switches, routers</li> <li>• Cloud software and management interface: Cloud.com</li> <li>• Data Centre: Tier III Pathway Data Centre; second site in Montreal (optional)</li> <li>• System monitoring, management and support systems: LiveTime, others</li> </ul> <h3>REPORTING AND MANAGEMENT</h3> <ul style="list-style-type: none"> <li>• Web-based automated self-service reporting and management console             <ul style="list-style-type: none"> <li>» Resource utilization dashboard and report</li> <li>» Management: rapid install, rebuild, reboot, restart, control</li> </ul> </li> </ul>	<h3>SECURITY</h3> <ul style="list-style-type: none"> <li>• Based on NIST guide to security for virtualization technologies</li> <li>• ICSA certified firewalls, IDS/IPS systems, threat management and unified reporting</li> <li>• Private VLANs for secure, encrypted access</li> <li>• Virtual server segregation using VLAN</li> <li>• Data never leaves Canadian borders and is not subject to the U.S. PATRIOT Act.</li> <li>• Logs: Access to all server and application logs, on request, for audit compliance</li> </ul> <h3>REDUNDANCY</h3> <ul style="list-style-type: none"> <li>• Snapshot based server images: scheduled and on-demand</li> <li>• Back-up: Nightly backups with off-site tape backup</li> <li>• Multi-homed upstream connectivity from Tier one providers; full BGP</li> <li>• Fully redundant Tier III Data Centre: power, cooling, fire-suppression</li> <li>• Data back-up to customer location optional</li> </ul>	<h3>SUPPORT:</h3> <ul style="list-style-type: none"> <li>• 24 x 7 systems management and monitoring</li> <li>• 24 x 7 support via phone, email, chat</li> <li>• On-site remote hands and feet</li> </ul> <h3>SERVICE LEVEL ASSURANCE (SLA)</h3> <ul style="list-style-type: none"> <li>• Availability: Network, Data Centre, HVAC and power: 99.99% (scheduled maintenance excluded)</li> <li>• Scheduled maintenance windows with advance notice</li> </ul> <h3>OPTIONAL SERVICES</h3> <p><i>These features are available at preferred prices for Pathway Secure Cloud Service clients:</i></p> <ul style="list-style-type: none"> <li>• Additional hypervisors</li> <li>• High availability via load balancers and shared IP addresses</li> <li>• Data migration</li> <li>• Clone backup</li> <li>• Secure, managed connectivity to data centre, inter-office, home (MPLS available)</li> <li>• Application support and programming</li> <li>• Creation, deployment and management of in-house private cloud</li> <li>• VoIP services and IP based telephony systems</li> <li>• Other managed data and colocation services</li> <li>• Virtual desktop services</li> </ul>

## MANAGING YOUR SECURE CLOUD



Once your secure cloud service is set up, our experienced Engineers will, at your option, manage your entire infrastructure and applications to ensure even higher levels of security and efficiency.

We apply the necessary patches or updates, fix bugs and resolve problems quickly and efficiently, whenever you need help. The time you save can be spent growing your business.

### Our Managed Cloud Service plans include:

Provisioning, configuration and set up of servers, operating systems

Ongoing patches, hot fixes, upgrades, maintenance, audits and reports

Security management: firewalls, intrusion prevention, virus and spam control, access and usage policies

Application deployment and management

## WHAT EXACTLY IS THE “CLOUD”?

*Pathway’s secure cloud represents the convergence of several technologies. Together, these offer you incomparable advantages.*

**Virtualization.** Offers extraordinary flexibility. Create and control multiple virtual machines on a single physical server. Cluster virtual servers across physical machines for high availability.

**Resource optimization.** Hardware resources on stand-alone systems are severely under-utilized. By provisioning only the resources you actually need on Pathway’s cloud, you avoid the costs of letting valuable equipment sit idle.

**Resource pooling.** Pathway’s Cloud Service lets you pool resources to serve multiple applications or users. Physical and virtual resources can be dynamically assigned and reassigned according to need.

**On-demand provisioning.** Instantly provision and deploy servers, storage, processing power and memory.

**Location independence.** Your IT systems can transparently connect and operate across different geographic locations.

**Network access.** Access systems over the Internet using desktops, laptops, mobile phones and PDAs.

**Simplified administration.** Intuitive and instant performance and resource-usage reports available through attractive dashboards. Control tools make systems management and administration exceptionally easy.

**Security and safety.** Every computing environment is rigidly segregated from every other. Pathway’s cloud delivers the same level of security that you would obtain in your own private data centre.

