

Magento Service Guide For Retailers

Unleashing the power of Magento with haste and ease

1.0 Introduction

Ecommerce retailers know the importance of having fast and reliable web hosting infrastructure. However not every business has the technical resources available that are needed to manage such environments, or simply do not wish to be distracted with managing infrastructure.

At Cogeco Peer 1 our goal is to speed up the deployment of new stores by pre-optimizing the platform for the Magento Application in advance and lifting the downstream challenges of managing the hosting infrastructure, from the retailer or Development Partner, to Cogeco Peer 1 instead. This reduces the time to go-live and allows our customers focus their energy on activities relating to the store, such as optimising the storefront to deliver a great customer experience, or increasing the conversion rates of landing pages to generate additional customer orders.

The Magento Optimized Managed Hosting Platform from Cogeco Peer 1 uses proven, optimized and scalable infrastructure components. Our FastFiber Network, with multiple geographically dispersed points of presence and optional CDN, ensures that customers never abandon your shopping cart because of poor site performance.

To recap, the key benefits are:

- Get online more quickly (saving the need for costly technical resources to tune/optimise the platform & getting the store online/selling faster)
- Less headache, the pains of managing the hosting infrastructure are moved from the retailer/ development partner to Cogeco Peer 1 instead.
- A faster and more resilient ecommerce store on a delivered on a reference architecture optimized for the Magento application.

This is all backed by an experienced team of Magento hosting experts and our FirstCall Support Promise[™]. Our FirstCall Promise[™] means you only have to make one call and we'll start working on your issue immediately. If there's a problem with your infrastructure, our team of Level II and Level III system administrators will get to work to make it right – right away.

2.0 Service Overview

The Magento Optimized hosting solution is specifically designed for performance, reliability and scalability - there are three reference architectures to choose from based on your individual needs.

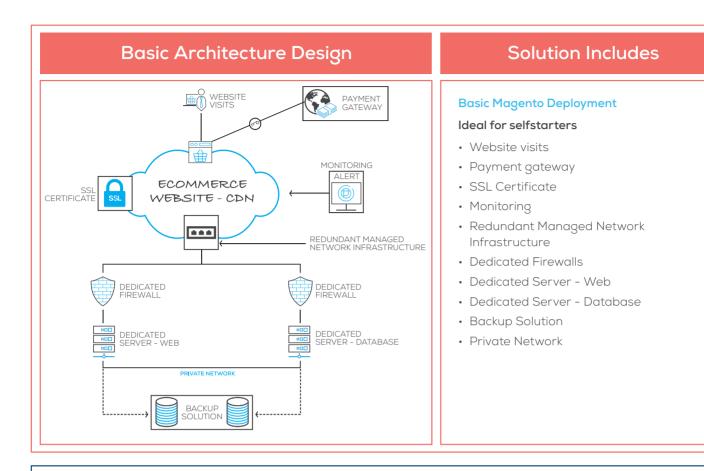
Typical components included for your Magento hosting stack include:

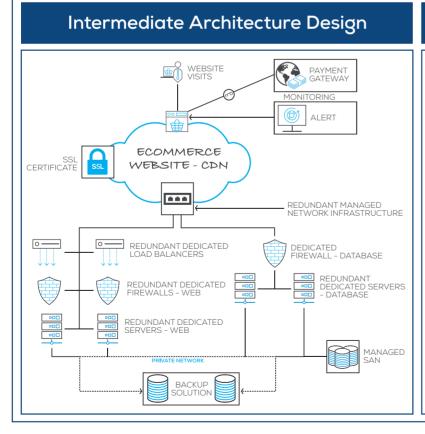
- Web Servers Dedicated servers to meet site load performance during traffic spikes
- Database Servers Dedicated servers with custom configurations give you the ideal performance for your specific database
- Load Balancing Increase application or site availability and performance by distribution traffic across local or global environments
- High availability Clustered databases reduces risk & ensures your critical databases remain online when you need them most
- · Firewalls Protect Servers from malicious activity with Enterprise grade firewalls
- SSL Certificates Ensuring your customers information remains secure while the transaction occurs
- Advanced Monitoring Providing you with the information you need to make decisions & alerts when there is something you need to know about
- Backups Provides peace of mind and protection from data loss, by ensuring your critical data has been copied up to a separate system on a regular basis
- Optimised OS Builds The solution will be preconfigured with specifically tuned versions of MySQL, Apache, Nginx, Memcached, Redis (from approved software repositories, CP1, EPEL, Remi), Varnish, Apache Tomcat (with SOLR, Elastic Search) & PHP (with available modules, additional modules are provided based on availability from approved software repositories; source compiled modules are not supported)

Our solutions below are backed by years of expertise, knowledge and experience in managing and hosting ecommerce sites for customers around the world.

The reference architecture designs for the Magento optimized platforms are detailed below. These are intended to demonstrate the services available & can be further customised to meet your business requirements:





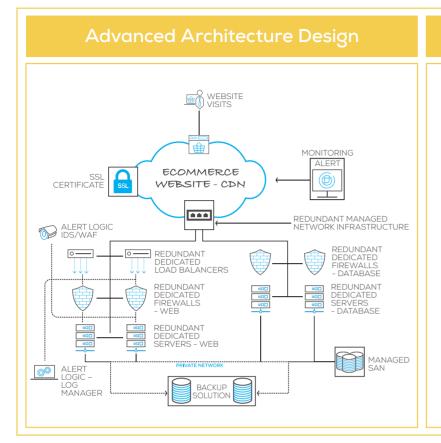


Solution Includes

Intermediate Magento Deployment

Ideal for established ecommerce stores

- Website visits
- Payment gateway
- SSL Certificate
- Monitoring
- Redundant Managed Network
 Infrastructure
- Dedicated Firewall Database
- Redundant Dedicated Load Balancers
- Redundant Dedicated Firewalls Web
- Redundant Dedicated Servers –
 Database
- Redundant Dedicated Servers Web
- Managed SAN
- Backup Solution
- Private Network

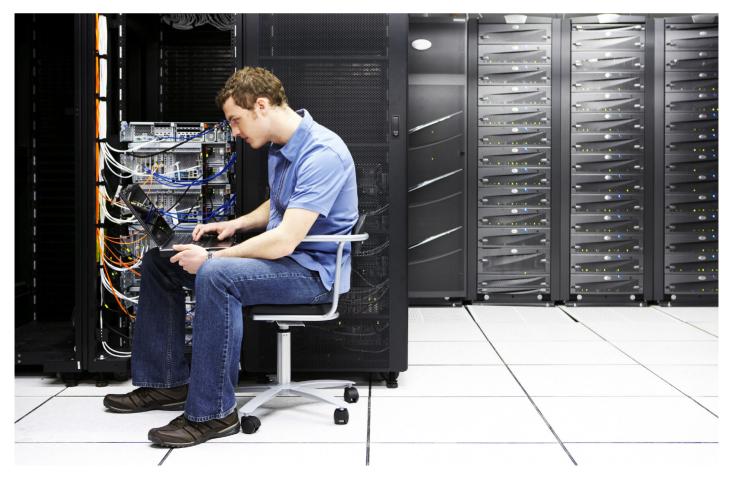


Solution Includes

Advanced Magento Deployment

Ideal for large-scale ecommerce stores

- Website visits
- SSL Certificate
- Monitoring
- Redundant Managed Network
 Infrastructure
- Redundant Dedicated Firewalls -Database
- Redundant Dedicated Firewalls Web
- Redundant Dedicated Load Balancers
- Redundant Dedicated Servers -Database
- Redundant Dedicated Servers Web
- Alert Logic IDS/WAF
- Alert Logic Log Manager
- Managed SAN
- Backup Solution
- Private Networks



3.0 Optimized Platform for Magento Applications

Ensuring that your Magento applications are running at peak performance with faster page loads, high performance levels during traffic spike in peak seasons, and always on, requires fine tuning by a team of experienced Magento systems engineers.

The OS and related dependent software's default settings are not ideal for any real world situation. We have worked hard to optimize a varsity of parameters that are appropriate to most Magneto implementations. These serve as the baseline from which Cogeco Peer 1 will help you fine tune the performance of your ecommerce site. Below is a list of the key optimizations that have been preconfigured to save many hours of expensive technical resource time:

- Increase size of file handles and inode cache
- Decrease number of SYNACKs for passive
- TCP connection
- Increase allowed local port
 range
- Decrease the value for tcp-fin-timeout connection
- Decrease the value for keep alive connections
- Increase Maximum Socket Receive Buffer
- Increase Maximum Socket Send Buffer
- Increase number of incoming connections
- Increase number of incoming connections backlog
- Increase the tcp-time-wait buckets pool size
- Install Git VIM Net-SNMP
 NTP

- Install and Configure Nginx
- Deploy Forward SSL-Offload Proxy Vhost
- Increase Open File Limits Increase Number of Process Limits
- Install Varnish 4.0 from Varnish Repo
- Configure Varnish with Magento VCL
- Install PHP 5.5, 5.6 or 7.0 from Remi Repo
- Install the following PHP modules needed for Magento 1 & 2:
 - php-fpm
 - php-cli
 - php-mcrypt
 - php-gd
 - php-mbstring
 - php-pdo
 - php-mysqlnd
 - php-opcache
 - php-pecl-redis
 - php-peclmemcached
 - php-intl

- PHP.ini memory limit raised to 1 GB in frontend PHP pool
- Install OnDemand PHP-FPM pools:
 - Split Pools for Frontend/ Backend Traffic
- Percona 5.6 MySQL Database Server
- Install Memcache
- Configure Memcache for 1 GB of sessions
- Install Redis & Configure Redis for Magento
- Install & Configure Percona for Magento
- Install & Configure Optional NFS in multi-application server deployments

Note: Optimisations can be customised to your individual solution requirements based on the feedback provided in the solution questionnaire.

4.0 Magento Platform Delivery and Onboarding

You will be provided with a specilised onboarding consultation with one of our experts who will guide you through the entire implementation process. The team ensures that databases are created, virtual host configurations are deployed correctly and file permissions are inline with best practices so that you and your solutions partner can focus your time and resources on fine tuning your Magento Storefront.

For the security of your account and infrastructure only the named contact on your account will be able to access our support services or make changes. The onboarding call is the ideal opportunity to specify any technical account contacts (including your solution partner) who will be able to access the account.

5.0 Magento Platform Support

Cogeco Peer 1 provides 24/7 support through service centers in the US and Europe. Our experienced team of administrators are well versed the high performance Linux technology upon which all of our Magento optimized platforms are built. We work closely with your Magento Solution Partner to quickly assess and resolve any issues so that you can get back to selling as quickly as possible.

The responsibilities matrix in section 10 has been designed to provide a clear understanding of the bundled support expertise that is included as part of your Magento optimized solution. The matrix also makes best practice recommendations for you and your Magento Solution partner to consider when agreeing the allocation of responsibilities between both organizations.

6.0 About your Support

Cogeco Peer 1 will provide the following support:

- 24x7 support available by phone and the online ticket system at mypeer1.com. Email updates will be provided to keep you informed of progress along the way.
- Incident Management ensures normal service is restored as soon as possible when there is an interruption service. Our goal is to minimize any business impact that may result from the incident and ensure service level quality is maintained.
- Changes required to your environment will follow the standard service request process to ensure the requested changes are tracked and handled with minimal impact to the store.
- A magento specialized customer on-boarding session with you and your Magento partner to ensure a successful implementation of your application.
- Access to the Peer 1 knowledge base which includes articles specific to the Magento optimised platform.
- Our basic monitoring package is included as to ensure swift response and notification of ping, limited port, and RAID service availability problems. More advanced monitoring packages are available if you require rich reporting dashboard and custom notifications.
- Easy access to the sales engineering support teams is available for you to reach out and work with for environment design changes.
- The patch management service will automatically deploy security and critical updates to the operating system of customer servers (where subscribed to the managed patching services). Magento Application updates will be installed on request to minimise impact to the storefront.

Incident Management & Service Request Examples:

The two primary ticket types for new support tickets are Incidents and Service Requests.

An Incident ticket is created to managed the restoration of service. Examples of incidents might include but are not limited to:

- Server down
- Degraded performance
- Website inaccessible

Incidents are prioritised based on the impact and urgency of the issue.

A Service Request ticket is created to track and manage changes that are required. Examples of service requests include but are not limited to:

- New orders / provisioning
- User administrator
- Firewall rule changes
- Patching / software updates
- Reboot requests

Service requests will be assigned a lower priority than incident tickets.

7.0 Incident Management Process

Cogeco Peer 1 will endeavour to provide a rapid response to any reported incident that may be impacting your Magento Hosting Platform. An incident is classified as an event where the restoration of service is the primary objective.

Cogeco Peer 1 will work with you and your Magento Development Partner to restore service as quickly as possible when an incident occurs. Ensuring effective communication during the lifecycle of all incidents is our number one priority.

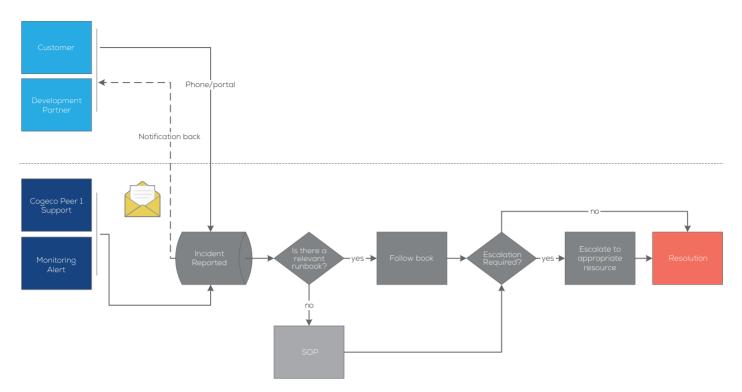
You can engage our experts to assist with incidents relating to the Magento hosting platform by creating a ticket in the MyPeer 1 online portal or by calling the advertised support phone numbers. Cogeco Peer 1 will create tickets for events generated by the monitoring system which will require your attention, or the attention of the Cogeco Peer 1 support team. All updates on incidents will be communicated to you via email from the Cogeco Peer 1 ticketing system.

Cogeco Peer 1 will assess the incident according to the impact, urgency and severity of the event and assign a ticket priority. Should you desire an escalation of priority, please contact your Cogeco Peer 1 support team who will consult with you on the priority level.

Cogeco Peer 1 will collaborate with you and your Magento Development Partner until the incident is resolved and the ticket is closed. During this process The Cogeco Peer 1 support team will communicate regularly with you throughout the incident, detailing their findings and actions taken.

The Diagram Below describes the incident management process:

Incident Management Process



Incident Management Process Detail

1. For new incidents the first action is to evaluate the critically and urgency of the incident, so appropriate priority level can be assigned.

2. Where a runbook note exists the instructions detailed will be followed.

3. Incidents are handled by the support team and will be escalated to senior system administrators if not resolved within reasonable a timescale, or where it is determined that specialised skill sets are required.

4. Throughout the process the support team will work with you as needed & will provide updates through to the point of resolution.

5. When incidents are resolved they will remain in this status for 14 days to allow customers to test or reopen if the fault reoccurs, where it reoccurs after this period it is logged as a new incident.

8.0 Service Requests & Changes

The Service Request Process utilizes our standard ticketing protocol to deliver efficient and prompt handling of changes to your environment & uses the ticket system to ensure record information relating to to the activity performed.

For any requests that may impact your monthly billing, your Cogeco Peer 1 Account Manager or Solutions Engineer will be able to work with you and your Magento Development to design the most optimized and cost efficient solution. Examples include increased traffic for your site that may require additional RAM, CPU or Storage.

You are encouraged to create a ticket to track scheduled or emergency changes that you or your Development Partner make to the Magento solution. This ensures the Cogeco Peer 1 support team is aware of these activities and can support you through the process.

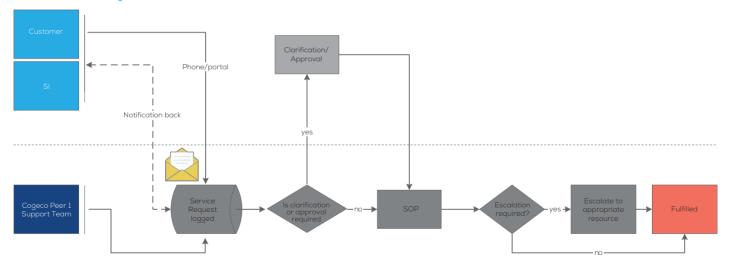
Customer or Magento Partner Initiated Changes

Changes to the environment may be requested from your authorized users. All request should be made by raised via opening an online ticket or by contacting the Cogeco Peer 1 support.

Cogeco Peer 1 Initiated Changes

In the event that Cogeco Peer 1 recommends a change to you solution you will be notified of the recommendation. The execution of the change will follow the Service Request process.

Service Request Process



Service Request Process Detail

1. For new incidents the first action is to evaluate to ensure all required details and approvals needed to fulfil the request are present.

2. Service requests will be scheduled and/or actioned by the support team who will escalate to senior system administrators if appropriate based on the specialised skill sets that will be required.

3. Throughout the process the support team will work with you as needed & will provide updates through to the point of fulfilment.

4. When service requests are completed they will remain in the resolved status for 14 days to allow customers to test or reopen if needed.

Cogeco Peer 1 includes the Basic Monitoring package by default as part of your Managed Hosting Service. Basic monitoring will perform a ping & port check against your device, in addition to this we will check for critical errors relating to the hardware RAID on servers. In the case of an event, Cogeco Peer 1 will notify you and perform a pre-determined action on your behalf, according to our standard runbook actions.

For customers looking for more detailed reporting and customisation of thresholds and alerts they wish to receive, the Standard Monitoring package is available for an additional fee. The Standard Monitoring package is powerful monitoring and reporting platform that provides a unified solution to monitor and all of your managed servers, devices and applications with a single pane of glass for all your graphs, reports and alerts on your server infrastructure.

10.0 Roles and Responsibilities Matrix (RACI)

Reducing risk and setting clear expectations around the roles and responsibilities is key to a successful deployment and the day to day management of your Magento platform. The responsibilities matrix below provides you with the necessary detail relating to the services included with your Cogeco Peer 1 Magento Optimized platform. The table also includes best practice recommendations for you and your Magento partner as your work together to support your Magento applications.

COGECO PEER 1 RESPONSIBILITY				
DEVELOPMENT PARTNER RECOMMENDED				
CUSTOMER RECOMM	ENDED			
ACTIVITY				
Service Level Activities				
Customer Online Portal	CI	СІ	RA	
• 24/7 Response to Incident Management & Service Requests via tickets or phone	1	Т	RA	
Change Management through ticketing	RACI	RACI	RCI	
Solution Design (Pre-Sales)				
Understand customer business objectives	RACI	RCI	RCI	
Deep technical discovery session	CI	CI	RA	
Provide detailed implementation requirements	RACI	RCI	RCI	
Design Optimized Magento solution to reference architecture standard	CI	CI	RA	
Select prefered solution from pressented designs	RA	R	CI	
Network Deployment				
Deploy and test included network infrastructure	CI	CI	RA	
Configure Cogeco Peer 1 side of VPN	CI	CI	RA	
	RA	RA	CI	
Configure non-Cogeco Peer 1 side of VPN				
Setup FW with Cogeco Peer 1 base configuration	CI	CI	RA	
Proscribe additional FW policies.	RAC	RCI	CI	
Implement additional FW policies upon request.	CI	CI	RA	

RACI: R=Responsible | A=Accountable | C=Consulted | I=Informed

COGECO PEER 1 RESPONSIBILITY			BILITY
DEVELOPMENT PARTNER RECOMMENDED			
CUSTOMER RECOMM	ENDED		
ACTIVITY			
OS Deployment Config base OS to design Deploy smartkey for Cogeco Peer 1 to use Deploy unsupported OS 	CI CI RA	CI CI R	RA RA CI
 Setup/install Cogeco Peer 1 dependant products (SSL, AV etc) Setup/install 3rd party products (SSL, AV etc) Install latest security patches at time of provisioning Acceptance testing 	CI CI CI RA	CI RA CI R	RA CI RA CI
User Creation & Management	RACI	RI	CI
Magento Deployment Deploy app server to standard magento configuration. Install platform dependencies. "Configure platform dependencies to default best practice. Adjusting platform dependencies from default to best practice. Setup/install Magento 3rd party products (elasticsearch, etc) Deploy example Magento CE storefront Select app code deployment strategy Implement code deploy strategy Configure Magento application. Maintain CI test coverage (continuous integration – Unit test) Remediate CI test failure. Load test application Traffic redirection (DNS/IP change). Install/update magento plugins Install/update failure of Magento security patches Configure Magento log cleaning (in-portal or via cron).	CI CI CI CI CI CI CI CI CI CI CI CI	CI CI CI RA RA CI RA RA RA RA RA RA RA RA	RA RA R CI RA CI CI CI CI CI RA CI
Onboarding & Optional Optimisations • Technical familiarisation & optimisation phone call • Provide runbook notes confirming actions to be taken for alerts • Setup/install 3rd party products	I R CI	CI RA RA	RA CI CI
Backups • Selecting data backup strategy (choice of backup tools, etc). • Implement backup strategy . • Validation & testing of backup strategy . • Maintenance of local backup script . • Initial configuration of scripted database backup (KB) per database, per table . • **Installation of Cogeco Peer 1 Managed Backup product (Tivoli) on client servers . • **Notification of backup product failure . • **Remediation of backup product failure .	RA RA CI CI CI CI CI	RA R RA RC CI CI CI	CI CI CI RA RA RA RA

RACI: R=Responsible | A=Accountable | C=Consulted | I=Informed

COGECO PEER 1 RESPONSIBILITY			BILITY
DEVELOPMENT PARTNER R	ЕСОММ	ENDED	
CUSTOMER RECOMM	ENDED		
ACTIVITY			
 Basic Monitoring & Alert Handling Selection of available port checks Configuration of customer select alerts. Specification of run-book action. Validation of monitoring alerts (testing). Incident Management of Basic alerts 	RACI CI RCI R I	RCI CI&CP1 RACI RA RI	CI RA CI CI RA
Standard Monitoring • Selection of monitoring level (options). • Monitoring alert threshold tuning (optimisation based on requirements) • Configuration of alerts. • Response and remediation of alerts. • Configure local services to provide data to monitoring service.	RACI RCI R R RCI	R RACI RA RA RA	CI CI CI CI
Patching & Antivirus • OS patches - availability and release (Cogeco Peer 1-YUM). • OS patches - validation of installation . • OS patches - exclude packages from update (not recommended) . • 3rd party application updates. • Antivirus update availability & installation.	I R CI R I	I RA RA RA I	RA CI CI CI RA
Miscellaneous • Migration • Migration of Magento Store	RA RA	R A	-

RACI: R=Responsible | A=Accountable | C=Consulted | I=Informed

Responsible: The person or group who does the work to achieve the task. They have responsibility for getting the work done or decision made. It is possible that there may be multiple groups responsible for a task.

Accountable: The person or group who is accountable for the correct and thorough completion of the task. This must be one person or group and is often the project executive or project sponsor. This is the role that responsible is accountable to and approves their work.

Consulted: The person or group who provide information for the project and with whom there is two-way communication. This is usually multiple people or groups, often subject matter experts.

Informed: The person or group to be kept informed of progress and with whom there is one-way communication. These are people that are affected by the outcome of the tasks, so need to be kept up-to-date.

*See section 3.0 for full details of platform optimizations. **Applicable in cases where managed backups are purchased.

11.0 Limitations

Please note the following important points relating to the Magento optimised hosting solution:

- Any additional requests relating to elements outside of the included components and software in the solution will be considered a professional services activity.
- Magento application support requests and escalations to Magento Inc will be the responsibility of the Development Partner or the Customer (as appropriate).

12.0 Patch Management Simplified

Effective patch management of your Magento platform is crucial to ensuring your environment is protected from the most recent vulnerabilities and system instabilities that can cause store downtime & loss of sales.

OS and Core Services

By default, Cogeco Peer 1 utilizes an automatic scheduled patch deployment mechanism. This process is triggered by a local cron task on the server to control when the patches should be installed.

Magento Application

Upon the release of critical patches by the Magento team, Cogeco Peer 1 administrators will be available to assist with installation of security patches to your magento store and can assist in remediating patch installation problems.



Cogeco Peer 1 is committed to providing services to its customers at a standard of excellence commensurate with the best practice in the industry. Network uptime and server availability are of the highest importance and we back this up with SLAs.

Cogeco Peer 1's Service Level Agreement located at https://www.cogecopeer1.com/en/legal/service-level-agreement/ applies to Cogeco Peer 1 Managed Hosting Server plans. This information is current at time of publication of this document (February 2017) and is subject to change at any time. All Cogeco Peer 1 Managed services are subject to Cogeco Peer 1 Terms of Service.

14.0 What else should I need to consider for my environment?

Cogeco Peer 1 offers a variety of additional services that you can layer upon the core infrastructure services beyond those already discussed including:

- High Availability Solutions redundant hardware infrastructure, Clusters, Virtualization & Load balancing technologies.
- Managed Backup Solutions with secure disk based backups, flexible retention policies & scheduling, all monitored by our backup administrators.
- · Content Delivery Networks (CDN) to ensure you website is delivered quickly.
- Payment Card Industry (PCI) certified environments
- Advanced Security Services Intrusion Detection Systems (IDS), Web Application Firewalls (WAF) & DDoS protection.

15.0 Database Administration Plans

We provide the expertise needed to optimize databases through our DBA Program at a fraction of the cost of hiring in house MySQL certified DBA's. The DBA Program assigns a highly experienced database administrator to work directly with you to realize every performance improvement possible with your database solution.





Contact Cogeco Peer 1 for more information on Cogeco Peer 1 ecommerce

info@cogecopeer1.com www.cogecopeer1.com

CA 413 Horner Ave. Etobicoke, ON M8W 4W3, Canada 1.866,579.9690 US 250 E Grayson St. San Antonio, TX 78215, United States 1.888.978.7251

UK
30 Town Quay,
Southampton,
S014 2AQ,
United Kingdom
0800 840 7490

FR GreenSide, Bât 2 400 avenue Roumanille 06410 Biot, France

0805 210 280

About Cogeco Peer 1

Cogeco Peer 1 is a wholly-owned subsidiary of Cogeco Communications Inc. (TSX:CCA) and is a global provider of essential business-to-business products and services, such as colocation, network connectivity, managed hosting, cloud services and managed IT services, that allow customers across Canada, the United States and Western Europe to focus on their core business. With global data centres, an extensive FastFiber Network™ and more than 50 points-of-presence in North America and Europe combined, Cogeco Peer 1 is a trusted partner to businesses small, medium and large, providing the ability to access, move, manage and store mission-critical data worldwide, backed by superior customer support.



© 2016 Cogeco Peer 1

