

CENTURYLINK® SERVICE SOLUTIONS

CENTURYLINK MANAGED APPLICATIONS



When it comes to infrastructure applications for Web environments, CenturyLink Business provides a broad range of solutions. Each solution is backed by experienced professionals who support these Web environments for some of the largest and most recognizable brands in the world. Our business model allows you to focus on what's important: Delivering an exceptional user experience to your customers on the Web. The most successful consumer packaged goods (CPG) companies already leverage interactive marketing and social media to drive awareness of their goods as well as brands, with good reason. Forrester Research predicts that interactive marketing budgets at CPG companies will grow by 36% over the next five years as businesses begin focusing less on traditional channels and more on interactive marketing.

WEB AND MIDDLEWARE APPLICATIONS

The applications you deploy at Web and middleware tiers play a vital role in how the face of your business — your Web servers — connect to the data contained in your database infrastructure, which represents the lifeblood of your business. The Web applications provide the window between your customers and your business. The middleware applications serve as a conduit for mapping customer-driven requests from your Web servers to the data in your database infrastructure. What's more, it allows Web servers to return dynamic Web pages based on your customers' specific requests.

WEB PERFORMANCE

Whether you're monitoring transactions between application tiers or creating a window to see how your Web applications are performing on your customers' desktops, our Web Performance Suite gives you transparency into application performance, whether inside the cage, inside the data center or anywhere in the world your customers are located.

MICROSOFT EXCHANGE

CenturyLink delivers Microsoft Exchange through either a multi-tenant or dedicated environments. We've created these two distinct offers to correspond directly to the needs of our clients. Whichever model you require, choosing CenturyLink means your Exchange is there when you need it wherever you need it and on any device that you need it. All managed by CenturyLink.

MESSAGING AND COLLABORATION

When it comes to opening the communication channels through your organization — Microsoft Exchange and Microsoft SharePoint offer the industry's most elegant and easy-to-use enterprise platforms. CenturyLink delivers all elements of Exchange and SharePoint in an easy-to-use, painless to deploy, simple-to-manage subscription-based service.

CenturyLink offers all three SharePoint service tiers — Standard, Foundation and Enterprise — in a subscription based model. This eliminates the capital burden of license procurement while removing the management burden from your internal resources.

DATABASE APPLICATIONS

Databases contain perhaps the most critical element to successful operation of your business: customer data. As businesses grow, databases grow with them, becoming enormously complex. For example, as data pours in through your Web properties and as new content is deployed to the servers that link to data in your databases, it becomes critical that data is replicated and updated in realtime with mirror databases. This puts an even greater applications management burden on your staff. Our elite team of database managers will simultaneously improve the efficiency of your database operations and free your staff to focus on what's core to your business.

MANAGED DIRECTORY

Keeping up with Active Directory change requests on any system can be a major challenge. Whether you need help managing patches or user licenses, we'll take care of the heavy lifting of your Active Directory and ensure that your system is always up to date.

MANAGED WEB APPLICATION SERVERS

In a business environment where even a brief period of downtime or poor site performance can cost your business millions of dollars, choosing the right server application and hosting provider is critical for ensuring that website availability and performance are fully optimized. With this in mind, CenturyLink has designed its Managed Web Server Services to be a fully managed application within the CenturyLink hosting portfolio.

Managed Web Server Services offer a reliable, high-performing, and secure vehicle for delivering HTTP content to end-users. It is hosted on the Intelligent Hosting, CenturyLink Cloud Server - Dedicated and Utility Compute platforms within CenturyLink data centers and delivered across the multiprotocol label switching (MPLS) - enabled Application Transport Network (ATN). What this offers you: availability. CenturyLink has built redundancy into its data centers and network infrastructure to ensure customer applications are highly available. And because it's managed by CenturyLink, businesses are free from time-intensive tasks like patch deployment and system monitoring. What's more, CenturyLink has the breadth of expertise to accommodate any number of Web deployments, from a simple, single instance to broader, complex solutions that require website creation, ongoing site management and custom monitoring.

Service Offering

- Management of the Web server software
- Installation of the Web server software
- Configuration of the Web server environment
- Monitoring of the Web server environment
- Ongoing maintenance and support for the environment

CenturyLink Delivers

- Software installation and configuration
- Monitoring and problem resolution on a 24/7 basis
- Proactive alert notification to customer technical contacts
- Software updates
- Local or remote content replication



MANAGED MIDDLEWARE APPLICATION SERVERS

Simplifying management of complex solutions

Middleware applications play a vital role in how the world perceives your business. After all, middleware connects the customer-facing applications running on your Web servers to the data stored in your databases. Yet because your IT resources are already stretched thin dealing with day-to-day operational challenges as well as supporting initiatives tied to generating revenue, managing these critical middleware applications is frequently not a priority. You simply don't have the time to ensure that your applications are performing optimally. CenturyLink can help. We've integrated some of the industry's leading middleware applications into our managed services portfolio. This can help you eliminate the time and much of the expense associated with managing your applications while still providing service excellence to your customers.

SERVICE DETAILS

Managed Web Server Services are available in the following Web Server Technologies:

WEB SERVER TECHNOLOGY	VERSIONS	AVAILABILITY SLA	SUPPORTED OS	INCLUDED FEATURES
Apache HTTP Server	2.0 & 2.2	98.5% - 99.9%	Linux & Unix	<ul style="list-style-type: none"> • PHP 5.2.5 • 45 included modules • 18 available modules
IBM HTTP Server	6.1 & 7.0	Not available	Linux & Windows	<ul style="list-style-type: none"> • 58 included modules
Microsoft IIS	6.0, 7.0 & 7.5	98.5% - 99.9%	Windows	<ul style="list-style-type: none"> • ASP.Net 2.0, 3.0, 3.5 & 4.0 • FTP services • SMTP services • WWW Services

CenturyLink has built its Managed Application Server Services into its management fabric, making it easily accessible through the SavvisStation customer portal and allowing businesses to combine powerful tools like Application Performance Monitoring to gain further insight and control over the transactions between their Web, middleware and database tiers.

At CenturyLink, we have considerable experience deploying and managing managed application servers in some of the most dynamic Web environments in the market today. By choosing CenturyLink you can:

- Significantly reduce time spent managing incidents and problems
- Minimize exposure to Internet-based attacks
- Enable your development staff to focus on taking care of customers, not the application server environment

THE CENTURYLINK ADVANTAGE

Asset Management

CenturyLink offers licensing, patch management and service upgrades that can meet your organization's unique requirements.

Cost-Effectiveness

Comprehensive Managed Application Server Services are offered at an affordable monthly fee.

WEBSHERE APPLICATION SERVER

WebSphere is ideal for businesses that need near-continuous availability, offering advanced performance and management capabilities for mission-critical applications. As a result, today more businesses than ever depend upon it as an integral component of their Web environment. WebSphere's unique capability to integrate data from multiple sources — including databases, spreadsheets, data warehouses, enterprise applications and Web servers — makes it an ideal solution for expediting deployment of applications in a service-oriented architecture (SOA) environment.

Apache Tomcat Application Server

Apache Tomcat Server usage is driven by customers looking for a low-cost limited functionality Java implementation, typically those just creating a Web presence. The secondary market of this product is driven by customers looking to reduce complexity and functionality where it is not needed in an effort to simplify support and reduce personnel overhead and costs. <http://tomcat.apache.org/>

Service Environments

Production Level

Service level objectives (SLO) for production-level environments will be to make reasonable efforts to resolve to individual trouble incident reports within four hours of an incident being reported to CenturyLink.

SERVICE DETAILS

Managed Web Server Services are available in the following Web server technologies:

APPLICATION SERVER TECHNOLOGY	VERSIONS	EDITIONS	INCLUDED FEATURES	SUPPORTED OS
IBM WebSphere	6.1 & 7.0	WAS ND	Not available	<ul style="list-style-type: none"> • Linux • Windows
Apache Tomcat Server	5.5 & 6.0	N/A	Not available	<ul style="list-style-type: none"> • Linux

WebSphere. software



Non-Production Level

Service level objectives (SLO) for non-production level environments will be make reasonable efforts to resolve to a trouble incident report within 24 hours of an incident being reported to CenturyLink.

Plan Levels

Plan levels are calculated based on the complexity of the total application server environment.

The primary variables in this calculation are:

- Whether your environment is production or non-production
- The number of application servers installed
- The number of applications installed on each server
- The number of support calls anticipated on a monthly basis

The result is an estimate of the number of consumable support hours each month. This number correlates to the applicable plan level selected, which is monitored by CenturyLink on a regular basis. Should the actual number of support hours consumed exceed the applicable plan level, an additional service charge may apply.

CenturyLink Delivers

- Monitoring and problem resolution on a 24/7 basis
- Proactive alert notification to customer technical contacts
- Performance monitoring and tuning
- Capacity planning
- Backup and disaster recovery services

MANAGED DATABASE SERVICES

Businesses are increasingly choosing to shift management of core infrastructure such as databases to an accredited technology provider whose sole focus is managing these pieces. By doing this, your staff can focus on what's core to your business rather than toiling away on database builds, backups, file integrity monitoring, user permissions, disk backups and the rest of the lengthy list of database administration tasks. As a recognized IT Infrastructure leader in the delivery of mission-critical hosted applications, CenturyLink is uniquely positioned to meet the needs of businesses that require secure and reliable access to database applications. Our comprehensive Managed Database Server Service is available for a predictable fee that significantly lowers your total cost of ownership (TCO).

MySQL Certified Administrators, Microsoft Certified SQL Server Database Administrators and Oracle Certified Database Administrators have years of experience and expertise in deploying and managing managed databases such as MySQL, MSSQL and Oracle that can scale easily to meet the demands of your business. You can feel secure that CenturyLink professionals are fully trained and certified to provide the services and capabilities you require on a 24/7 basis.

Managed Database Services offer a reliable, high-performing and secure vehicle for delivering data to end-users and consumers. It is hosted on Intelligent Hosting, Cloud Open, Dedicated Cloud, and Utility Compute platforms within CenturyLink data centers and delivered across the MPLS-enabled

SERVICE DETAILS

CenturyLink Managed Database Server Services are available in the following Web Server Technologies:

DATABASE SERVER TECHNOLOGY	VERSIONS	EDITIONS	AVAILABILITY SLA	SUPPORTED OS	INCLUDED FEATURES
Microsoft SQL Server	2005, 2008 & 2008 R2	Web Standard Enterprise	98.5% - 99.99%	<ul style="list-style-type: none"> • Windows 	<ul style="list-style-type: none"> • Reporting services* • Analysis services* • Local database backups
MySQL	5.0	Enterprise	98.5% - 99.25%	<ul style="list-style-type: none"> • Linux • Unix 	<ul style="list-style-type: none"> • Local database
Oracle	9i 10g 11i	Standard Enterprise	Not available	<ul style="list-style-type: none"> • Linux • Unix • Windows 	<ul style="list-style-type: none"> • Data Guard • Basic Standby • ASM

Application Transport Network (ATN). The significance of this: availability. CenturyLink has built redundancy into its data centers and network infrastructure to ensure customer applications are highly available. And because it's managed by CenturyLink, businesses are free from administering time-intensive tasks like patch deployment and system monitoring. What's more, CenturyLink has the breadth of expertise to accommodate any number of database deployments, from a simple, single instance to broader, complex solutions that require database creation, ongoing database management and custom monitoring — all of which are available through Professional Services.

Service Offering

- Management of the database server software
- Installation of the database server software
- Configuration of the database server environment
- Monitoring of the database server environment
- Ongoing maintenance and support for the environment

THE CENTURYLINK ADVANTAGE

Flexibility

CenturyLink offers Application Performance Monitoring Services that can meet your organization's unique requirements from dedicated to shared models.

Deep Inspection

Inspection of application execution, performance and availability across your entire environment.

Granular Reporting

Store historical data and trending statistics through the SavvisStation Portal.

Proactive Alerting

Detect and alert on defined thresholds for end-user requests, end-to-end activities and response times.

Performance-Based SLA

A performance-based SLA for your entire environment at CenturyLink can be obtained through the addition of this service.

APPLICATION PERFORMANCE MONITORING

Managing the performance of your applications has never been easier.

User transactions, database interactions, scripting, ongoing content management and deployment. The list of components and transaction types that make up the everyday function of your applications is a lengthy one. Each is critical to ensuring end-user experience. Inevitably, some of these components will experience service-impacting events through the lifecycle of the application. Application Performance Monitoring (APM), powered by Gomez, delivers a tool that enables rapid diagnosis of issues so you can take immediate corrective measure and minimize the service problems that your end-users are experiencing. Here's how:

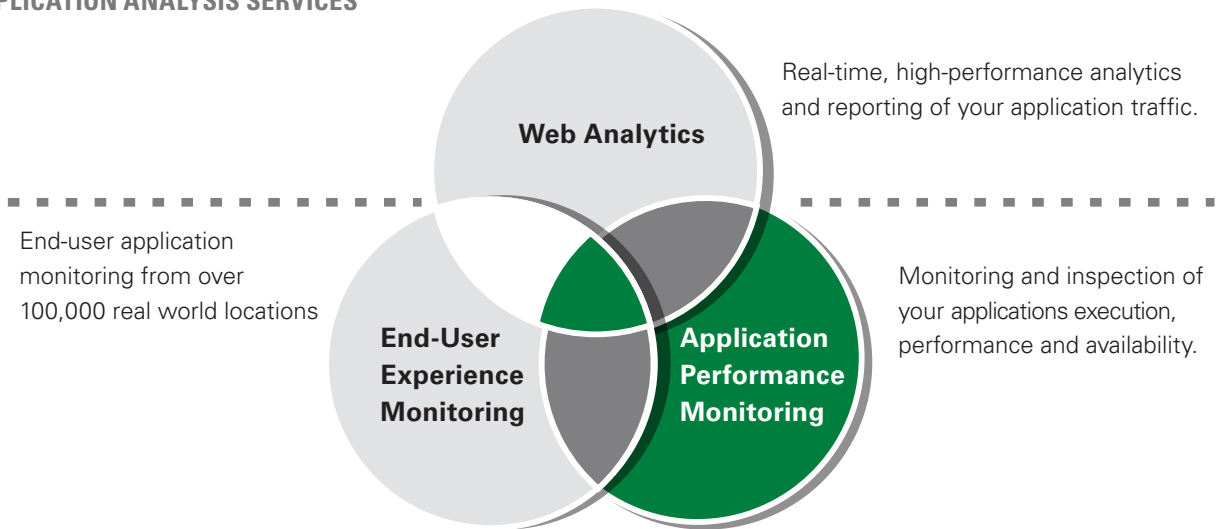
- **Identification:** APM monitors every part of the application stack as each component executes in order to determine where latency or performance issues are occurring.
- **Know what your end-user is experiencing:** APM delivers alerts and reporting for end-user response times that exceed the thresholds you define. What's more, APM uses this data to identify potential performance bottlenecks and provide actionable advice when end-user experience becomes compromised.
- **SavvisStation Portal:** All of the monitored components of your application stack are visible in SavvisStation, a powerful robust portal designed to keep you dialed into the system health of your applications, servers and networking devices.
- **Performance monitoring:** APM aggregates, correlates, analyzes and reports on application-relevant information across Windows and Linux operating systems, file-oriented data including Oracle and SQL databases, and enterprise applications including Oracle, Apache, IIS and MS SQL.

SERVICE ADD-ONS

The following services are available as add-ons to the Managed Database Server Service for an additional fee.

DATABASE SERVER TECHNOLOGY	ADD-ON	
Microsoft SQL Server	<ul style="list-style-type: none"> • Clustering • Database Mirroring 	<ul style="list-style-type: none"> • Database Snapshots • VERITAS Hot Backup Agent
MySQL	<ul style="list-style-type: none"> • Database Replication 	<ul style="list-style-type: none"> • MySQL Enterprise Monitor
Oracle	<ul style="list-style-type: none"> • Active Standby • Advanced Security Option • Advanced Replication • Database Vault • Diagnostic & Tuning Packs • Partitioning 	<ul style="list-style-type: none"> • RAC • Spatial Option • Transparent Data Encryption • VERITAS Hot Backup Agent • Quest SharePlex

APPLICATION ANALYSIS SERVICES



Service Details

Application Performance Monitoring Services are available for the following CenturyLink managed technologies:

- Windows Linux Operating Systems, Unix and Mainframe Systems
- File-oriented data including Oracle and SQL Databases MySQL and Sybase
- Enterprise applications including Oracle Forms, MS SQL Server, Apache, IIS, SAP, Exchange, Citrix, Tuxedo (Peoplesoft) and MQ
- Web and middleware platforms including .Net and J2EE
- Additional fault domains can be monitored utilizing addition analyzer such as DNS, TCP/IP and UDP. Such fault domains can include but are not limited to Active Directory, DNS, File Servers and FTP servers.

SavvisStation and APM

All CenturyLink customers are given access to the SavvisStation portal. SavvisStation offers instantaneous visibility into your critical IT infrastructure through a simple, user-friendly interface. Adding APM to your hosting environment extends the reach and visibility of SavvisStation beyond the infrastructure into the application, offering detailed views of your applications' health and performance.

END-USER EXPERIENCE MONITORING

HTTP 404: You just lost a customer...

In the interactive marketplace, users have very little patience for sluggish applications and slow page loads. It's quite simple: The longer the hourglass icon appears on your page, the less likely your customers are to convert or return. Yet although it's understood that the capacity and quality of IT infrastructure inside the data center is critical to businesses, many fail to look beyond the walls of their hosting environment to measure the quality of their customers' experience when interfacing with their Web applications.

MEASURE CUSTOMER EXPERIENCE

Flexibility

CenturyLink offers End-User Web Application Experience Monitoring Services that can meet your organization's unique requirements.

Robust

Measure application performance from over 150,000 real-world locations

Expert Consultation and Installation

Setup and design consultation for configuration application specific measurement, alerting thresholds and capacity planning

Performance-Based SLA

A performance-based SLA for your entire environment at CenturyLink can be obtained through the addition of this service

Unfortunately, your customers don't access your applications and Web content from the cage in your data center. Your Web apps must traverse thousands of miles of fiber over multiple networks, often with content being delivered from third parties, cloud providers or content delivery networks before reaching their destination. These variables play a key role in the overall delivery quality of your applications and should be monitored and reported on so your teams can take action to ensure that each end-user's quality of experience (QoE) is exceptional.

CenturyLink and Gomez: Understand your Web Ecosystem

CenturyLink has engaged Compuware Gomez, the leader in Web application experience management, to deliver a monitoring tool that complements our managed hosting solutions and provides you with valuable insight into how end-users experience your applications. The Gomez Synthetic and Real User Monitoring Suite offers advanced monitoring capabilities that deliver valuable insight on your application performance, alerting team members to problems and allowing them to troubleshoot performance issues. Gomez also provides the detailed diagnostics needed to fine tune your applications so they perform flawlessly where it counts: on your customer's desktop. Here's how:

End User Experience Monitoring

Web Performance Monitoring from the Internet Backbone

- Gomez Synthetic Monitoring - Backbone™: Monitors website response time, availability and consistency of single page or multi-step transactions from up to 150 major cities and networks around the globe. Because Gomez external website performance testing originates outside the firewall, it gets you one step closer to understanding your customers' experience by monitoring website performance across the Internet's main highways.

Web Performance Monitoring from the Last Mile

- Gomez Synthetic Monitoring - Last Mile™: Monitor performance from the "edge of the Internet." Active Last Mile is the desktop measurement component of the Gomez ExperienceFirst Suite and relies upon a network of over 150,000 end-user desktop computers located in 168 countries worldwide. Gomez' Active Last Mile XF measures the response time, availability and consistency of your company's multi-step transactions and Web pages from tens of thousands of consumer-grade desktops across different connection speeds, ISPs and geographies. With this "last mile" perspective, companies can assess how site changes, geographic location and bandwidth constraints affect the way your customers experience your website.

CLOUD DATABASE

Enterprise Databases On-demand without Long-Term Licensing

Cloud Database brings the advantages of cloud computing to Oracle and Microsoft SQL Server environments. With just a few clicks, Cloud Database provisions everything you need for a complete, secure database solution.

No need to purchase long-term licenses, just click and CenturyLink provides you accessibility to a customizable database environment — everything you need. You can use Cloud Database for as little or as long as you like and scale up or down with just a few clicks, providing you the agility you need for your enterprise database solutions. Best of all, Cloud Database can bring cost reductions of approximately 20% to 75% over other hosted database solutions.

Stop waiting for the servers to be provisioned. Stop committing to long-term software licensing expenses. Start enjoying a secure enterprise database solution with just a few clicks.

Why Cloud Database?

- Administration
 - No need to procure, install, patch or physically administer the database software, operating system or underlying technologies and infrastructure.
 - Supports multiple databases through the SavvisStation portal
 - Database management with Microsoft, Oracle and third-party database management tools, suites and products.
- Flexibility
 - Rapidly scale performance levels based on business needs
- Performance
 - Performance Guarantees
 - Burstable Performance
- Automatic Fault Tolerance
 - Clustered hardware, operating system and database software
 - Database mirroring for multi-data center disaster recovery
- Security and Compliance
 - Database, backup and connection encryption
 - Dedicated database firewalling with SavvisStation portal
 - Database backups, offsite backup retention and vaulting options
 - Database access and authorization management through portal
- Availability and Recoverability
 - Online database re-indexing and on-demand database restores
 - Online database

MICROSOFT SHAREPOINT

Microsoft SharePoint has become a cornerstone for enterprises seeking to improve collaboration and communication among internal teams as well as clients and partners. SharePoint offers an industry-recognized platform that quite simply, makes it easier for people to work together. Using SharePoint will allow groups in your organization to launch and administer websites to share information with others, manage documents from start to finish and publish reports to empower your business to make more informed decisions.

SharePoint delivers a true turnkey solution for driving sweeping collaboration enhancements that ultimately will improve your bottom line. Now, CenturyLink offers a fully managed, dedicated Sharepoint service that eliminates the pains of implementation and management. What's more, our flexible support model allows you to provide your own SharePoint licenses or allow CenturyLink to provision them for you.

Delivered on all CenturyLink Hosting Platforms

SharePoint is delivered on CenturyLink's robust suite of dedicated hosting or cloud platforms offering fully redundant and quickly scalable environments. As part of your managed service, CenturyLink provides everything from implementation to licensing schema and patch management. All administered by Microsoft-Certified CenturyLink engineers in a state-of-the-art CenturyLink data center.

With tools for collaboration that help people stay connected across organizational and geographic boundaries. SharePoint is a powerful collaborative tool that serves multiple features and functions.

CenturyLink removes the burden of deploying a robust SharePoint environment. Here's how:

Availability SLAs – Peace-of-mind starts with knowing that your SharePoint environment is always there when you need it. CenturyLink's availability SLAs deliver assurance that your SharePoint service is always tuned to deliver an exceptional user experience. We offer a number of implementation models that deliver from 95% - 99.99% availability.

CenturyLink Monitoring – CenturyLink monitors and reports on performance criteria to you monthly and will proactively notify you of potential performance issues before they occur.

Active Directory Integration – CenturyLink will help you seamlessly integrate SharePoint 2010 into your existing corporate Active Directory solution.

Backup and Restore – If you're storing business critical data and documentation on SharePoint we'll help you protect it. Whether you're looking for vendor redundancy, diverse data centers or a redundant, single center hosting architecture, CenturyLink can build the solution that's right for your unique needs.

Integrated Self Service Portals – Administer your SharePoint environment quickly and easily and at any time through our Self Service portals.



For more information about CenturyLink Business, visit www.centurylink.com/enterprise.