CenturyLink Service Guide

Web Application Software 1.0:
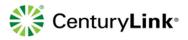Microsoft Internet Information
Services (IIS)

This Service Guide ("SG") sets forth a description of the Web
Application Software 1.0: Microsoft Internet Information
Services (IIS) offered by CenturyLink, including technical
details and additional requirements or terms. This SG is
subject to and incorporated into the Agreement and Hosting
Service Schedule between the parties. The specific details of
the Service ordered by Customer will be set forth on the
relevant Service Order. For avoidance of doubt, any
references in the Agreement, Schedule, or Service Orders to
SSG, shall mean SG.

Version	Previous	Section Modified	Date
HOS-SG-Managed-MSIIS-20180816.pdf	HOS-20140910-SG-MSIIS.pdf	All	August 16, 2018

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Overview

Web Application Software 1.0: Microsoft Internet Information Services (IIS) is a Managed Hosting product. The standard "Service" consists of the licensing, installation, configuration, administration, monitoring, maintenance and support for software components.

The Managed Hosting SLA applies to this Service.

Supported Services

- ASP.Net: 1.1, 2.0, 3.0, 3.5, 4.0, 4.5, 4.6
- File Transfer: IIS FTP Services
- Message Processing: IIS SMTP Services
- Web Publishing: IIS WWW Service

Supported Editions, Versions, Platforms and Operating Systems

See Managed Application Services Compatibility Matrix or navigate to https://www.ctl.io/legal/managed-hosting/web-apps-compatibility-matrix/ from any Internet browser.

Access

Customer is provided administrative full control to Managed Microsoft IIS. Any outages directly caused by Customer are not subject to SLA Service credits.

Monitoring

CenturyLink will enable application level monitoring for each environment as they are created within the product configuration. CenturyLink will retain primary notification and resolution responsibilities for all automated environment alerts. A Customer technical contact will be engaged to perform primary resolution of incidents associated with a non-production level environment.

Maintenance and Support

- **Change Management:**
  All changes to the CenturyLink managed applications, systems, network and facilities are subject to CenturyLink's change management process. This process is intended to confirm that work is reviewed for completeness (risk assessment,

completed test procedure, metrics for measuring progress, back out procedure, etc.) and accuracy prior to scheduling and implementation.

- **Major and Minor Releases:**
  Major and Minor Releases are upgrades and require a new installation of the Software binaries, which is not included in this Service. As a commercially reasonable practice, it is suggested that Customer purchase a new managed server (via a Service Order) and purchase migration services (via a Statement of Work). Customer should contact their sales representative to determine their upgrade options.

- **Patch Releases:**
  CenturyLink compiles, packages, certifies, approves and delivers Software patch branch versions for installation in a Customer environment. Customer must approve the installation by contacting CenturyLink support. Any Outages directly caused by Customer's failure to accept the implementation of a patch will not be subject to SLA service credits.

- **Maintenance Windows:** CenturyLink will use commercially reasonable efforts to perform routine maintenance only during defined maintenance windows. See our published Maintenance Window schedule, or navigate to https://www.ctl.io/legal/managed-hosting/maintenance-windows/ from any Internet browser. CenturyLink has the right to perform scheduled maintenance (during the windows specified), which may limit or suspend the availability of the Services. CenturyLink shall provide Customer with at least ten (10) days prior notice of any scheduled maintenance activities. In addition to providing written notice, CenturyLink maintenance notifications are available on the SavvisStation customer portal.

- **Support:**
  CenturyLink will provide support for the Service during installation, content migration, Customer validation, and 24x7 monitoring and management by the CenturyLink Service Center after installation.

Optional Services

At Customer's option and expense, Customer can purchase the following additional services for a fee, and additional terms and conditions apply.

SSL Certificates

SSL Certificates are small data files that digitally bind a cryptographic key to an organization's details. When installed on a web/application server, it allows secure connections from a web/application server to a browser. An SSL Certificate can be purchased via a Service Order.

CenturyLink Responsibilities

Licensing

- Maintain licensing and support with Microsoft
- Procure SSL Certificate, if purchased

Installation

- Prepare server for application service (OS specific parameters)
- Install ASP.Net versions (not native to OS)
- Install Microsoft IIS (including available sub components)
- Harden Microsoft IIS to CIS Level 1 and CenturyLink standards
- Install SSL Certificate, if purchased
- Install CenturyLink Monitoring
- Perform quality assurance against Microsoft IIS installation/hardening

Configuration

- Configure site connectivity (host headers, TCP port, IP address and SSL Certificate allocation)
- Configure CenturyLink Monitoring

Administration

- Recycle application pool(s)
- Restart/Stop/Start Services

- Update managed servers with all recommended patches, upon Customer request

Maintenance and Support

- Coordinate patching with Customer during maintenance hours
- Customer initiated redundancy & high availability test/audit (excludes Disaster Recovery testing)

 If a customer requires any additional services which are not explicitly included as either the standard Service or optional services in this SG, they should contact their sales representative for assistance and information.

Customer Responsibilities

Customer acknowledges and agrees that its failure to perform its obligations herein may result in CenturyLink's inability to perform the Services and CenturyLink shall not be liable for any failure to perform, including any SLAs in the event of Customer's failure. CenturyLink shall not be liable for any failure to perform in the event Customer does not fulfill Customer's responsibilities and requirements as detailed herein and in the event of Customer's errors or omissions in setting up the environment. In addition, CenturyLink is not responsible for any loss or corruption of data or information. CenturyLink's obligations related to data are exclusively governed by the Security and Compliance section of the applicable Agreement.

Licensing

Licensing of the Software is provided by CenturyLink. Licensing is included in the CenturyLink provided operating system under the Microsoft Service Provider Use Rights and License Agreement. All users of the Service are subject to the terms and conditions of the referenced license agreements.

Configuration

- Create/configure application pools
- Create/configure sites
- Deploy Customer code and content
- Create/configure ODBC resources
- Data validation, User Acceptance Testing (UAT), Site Acceptance Testing (SAT)

Administration

- Maintain Customer code and content
- Customer code and content packaging
- Request/initiate DNS Zone changes when using CenturyLink managed DNS Services

Acknowledgements and Consent

1. **Third–Party Components:** Customer acknowledges that all third-party components of the Service are subject to the applicable vendor's decision to (i) not continue to provide or renew the Service with CenturyLink and/or (ii) modify or end of life a component(s). If any of the foregoing occurs, CenturyLink will use commercially reasonable efforts to migrate Customer to another comparable CenturyLink service at any time. Such migration will occur without regard to Customer's current term.
2. **Provide Contact:** Designate and maintain a Customer Contact during the service term and any applicable renewal term (including current contact information). "Customer Contact" means a technical point of contact with sufficient knowledge, authority and access to address configuration issues, event notifications, system or infrastructure modifications and authentication of applicable systems.
3. **Security Precautions:** Neither Customer nor its representatives shall attempt in any way to circumvent or otherwise interfere with any security precautions or measures of CenturyLink relating to the Service or any other CenturyLink equipment.
4. **Supportability:**
   a. Customer acknowledges and agrees that it is solely responsible for selecting and ensuring its software and systems are up to date and supportable.
   b. Customer further acknowledges it is solely responsible for ensuring all devices and hardware are upgraded to meet vendor configurations and agrees that CenturyLink's SLA only applies to currently supported configurations (including but not limited to related devices, software, and operating systems) at the time SLA support requests are triggered. If any configuration or version is identified as "unsupported" by a vendor, the Services are subject to all of the following conditions and/or requirements: (i) a service level objective ("SLO") referring to CenturyLink's reasonable effort to provide support will apply in lieu of any other applicable SLA and will automatically apply from the time CenturyLink receives notice from the vendor of such unsupported service; (ii) CenturyLink, in its reasonable discretion may elect to charge the Customer for any support or additional tasks/work incurred by CenturyLink resulting from Customer's continued use of unsupported

configuration until Customer purchases the required and supported upgrades or extended support at an additional cost from the vendor. The requirement to purchase upgrades or extended support from vendor shall apply at any time, regardless of any contract term, term commitments, or renewal periods. Customer's failure to do so may result in CenturyLink's inability to provide the Services and CenturyLink shall have no liability therefrom.

c. CenturyLink is not responsible for the service or the SLA if any changes by Customer affect the infrastructure or monitoring capability of CenturyLink.

5. **Data Transfer:**
   a. Customer consents to CenturyLink's and its affiliates or subcontractors' use and transfer to the United States, or other countries, data or information (including Customer Contact information such as names, phone numbers, addresses and/or email addresses) of the Customer for the sole purpose of: (i) fulfilling its obligations under the Agreement; and (ii) providing information to Customer about CenturyLink's products and services. Customer represents that it will ensure that all information provided to CenturyLink is accurate at all times and that any business contact has consented to CenturyLink's processing of such information for the purposes identified herein.
   b. Customer consents to CenturyLink collecting and compiling system and operational metrics data to determine trends and improve service capabilities. CenturyLink may associate this data with similar data of other Customers so long as such data is merged in a manner that will not in any way reveal the data as being attributable to any specific Customer. Customer acknowledges CenturyLink's access to Customer data is generally limited to machine/system generated information and/or metrics, however if required as part of CenturyLink's obligation to provide the Service, or requests by Customer, CenturyLink may have access to Customer data, including personal information.

Monitors

Monitors for Microsoft IIS WWW Service

Monitor	Description of Alarm Triggers	Frequency
IIS CPU Usage	The IIS inetinfo process is over 90%	5 Minutes
IIS Memory Usage	The IIS inetinfo process memory usage is greater than 90% of the total server memory	5 Minutes
IIS ASP State Service	The IIS ASP.net State service is not running	1 Minute
IIS Admin Service	The IIS Admin (inetinfo) service is not running	1 Minute

Monitor	Description of Alarm Triggers	Frequency
IIS WWW Service	The IIS W3SVC service is not running	1 Minute
IIS Application Host Helper Service	The IIS Application Host Helper service is not running	1 Minute
IIS WAS Service	The IIS WAS service is not running	1 Minute
Windows Event Log	The event log is polled for IIS errors related to the web server components of IIS	Instant
IIS WWW Port Check	Alarms if TCP Port 80 is not listening	5 Minutes
IIS Blocked Requests	Alarms when a request was denied because a user defined bandwidth threshold was exceeded	5 Minutes
IIS Not Found Error	Alarms when a 404 error is generated	5 Minutes

Monitors for Microsoft IIS FTP Service

Monitor	Description	Frequency
FTP Service	The IIS FTP service is not running	1 Minute
Windows Event Log	The Event log is polled for IIS Errors related to the FTP server components of IIS	Instant
FTP Port Check	Alarms if TCP port 21 is not listening	5 Minutes
FTP Bytes Sent	Alarms if the FTP Service is sending more than x MB	15 Minutes
FTP Bytes Receive	Alarms if the FTP Service is receiving more than x MB	15 Minutes

Monitors for Microsoft IIS SMTP Service

Monitor	Description of Alarm Triggers	Frequency
SMTP Service	The IIS SMTP service is not running	1 Minute
Windows Event Log	The Event log is polled for IIS errors related to the FTP server components of IIS	Instant
SMTP Port Check	Alarms if TCP port 25 is not listening	5 Minutes
SMTP Connection Refused	Alarms when the server cannot create an outbound connection	5 Minutes

Definitions

ASP.Net: ASP.NET application services are built-in Web services that provide access to features such as forms authentication, roles, and profile properties. These services are part of a service-oriented architecture (SOA), in which an application consists of one or more services provided on the server, and one or more clients.

IIS FTP Service: IIS provides an FTP service, which you can use to allow users on remote computer systems to copy files to and from your server on a network that uses TCP/IP. The IIS FTP service is an implementation of the RFC 959 File Transfer Protocol

(FTP), and several extensions. The FTP protocol is implemented on top of TCP, which ensures that file transfers are complete and that data transfer is accurate.

IIS SMTP Service: The SMTP service in IIS processes messages by using the Simple Mail Transfer Protocol (SMTP), which is a TCP/IP protocol that is used to send and receive messages from one computer to another on a network. This protocol is used in intranets and on the Internet to route e-mail.

IIS W3SVC: Internet Information Services (IIS) ISAPI (Internet Server Application Programming Interface) extensions and filters can extend and modify the request-processing capabilities of IIS.

IIS WWW Service: The World Wide Web Publishing Service (WWW service) provides Web publishing for IIS, connecting client HTTP requests to web sites running on an IIS-based web server. The WWW service manages and configures the IIS core components that process HTTP requests. These core components include the HTTP protocol stack (HTTP.sys) and the worker processes.

IIS WAS: Windows Process Activation Service (WAS) manages application pool configuration and the creation and lifetime of worker processes for HTTP and other protocols.

Major Release: Major Releases (X.y.z) are vehicles for delivering major and minor feature development and enhancements to existing features. They incorporate all applicable error corrections made in prior Major Releases, Minor Releases, and Patch Releases. Software Provider typically has one Major Release per year.

Minor Release: Minor Releases (x.Y.z) are vehicles for delivering minor feature developments, enhancements to existing features, and defect corrections. They incorporate all applicable error corrections made in prior Minor Releases, and Patch Releases.

Patch Release: Patch Releases (x.y.Z) are vehicles for delivering security fixes, feature developments, enhancements to existing features, and defect corrections. They incorporate all applicable error corrections made in prior Patch Releases. Patches are often called "Patch Updates" and are Critical or Security related.

SMTP Port Check: The Simple Mail Transfer Protocol (SMTP) port check is configured to ensure that the service is running.

SMTP Service: The Simple Mail Transfer Protocol (SMTP) service provided by IIS is a simple component for delivering outgoing e-mail messages.

Software: Software in binary form, any other machine-readable materials (including,

but not limited to, libraries, source files, header files, and data files).

Software Provider: A third party that makes and sells software products CenturyLink uses in the services we deliver.