IIS Interview Questions

1- The HTTP status codes in IIS 7.0

      - Log file locations

      =>By default, IIS 7.0 puts log files in the following folder:

inetpub\logs\Logfiles

      - Log File Name:

      =>This folder contains separate directories for each World Wide Web site. By default, the log files are created in the directories daily, and the log files are named by using the date. For example, a log file may be named as follows:

exYYMMDD.log

2 - In which process does IIS runs (was asking about the EXE file) ?

      inetinfo.exe is the Microsoft IIS server running, handling ASP.NET requests among other things. When an ASP.NET request is received (usually a file with .aspx extension), the ISAPI filter aspnet_isapi.dll takes care of it by passing the request to the actual worker process aspnet_wp.exe.

3 - Where are the IIS log files stored ?

      C:\WINDOWS\system32\Logfiles\W3SVC1

      or

      C:\winnt\system32\LogFiles\W3SVC1

3 - What are the different IIS authentication modes in IIS 5.0 and Explain? Difference between basic and digest authentication modes ?

      IIS provides a variety of authentication schemes:

      • Anonymous (enabled by default)

      • Basic

      • Digest

      • Integrated Windows authentication (enabled by default)

      • Client Certificate Mapping

Anonymous :

      Anonymous authentication gives users access to the public areas of your Web site without prompting them for a user name or password. Although listed as an authentication scheme, it is not technically performing any client authentication because the client is not required to supply any credentials. Instead, IIS provides stored credentials to Windows using a special user account, IUSR_machinename. By default, IIS controls the password for this account. Whether or not IIS controls the password affects the permissions the anonymous user has. When IIS controls the password, a sub authentication DLL (iissuba.dll) authenticates the user using a network logon. The function of this DLL is to validate the password supplied by IIS and to inform Windows that the password is valid, thereby authenticating the client. However, it does not actually provide a password to Windows. When IIS does not control the password, IIS calls the LogonUser() API in Windows and provides the account name, password and domain name to log on the user using a local logon. After the logon, IIS caches the security token and impersonates the account. A local logon makes it possible for the anonymous user to access network resources, whereas a network logon does not.

Basic Authentication :

      IIS Basic authentication as an implementation of the basic authentication scheme found in section 11 of the HTTP 1.0 specification.

      As the specification makes clear, this method is, in and of itself, non-secure. The reason is that Basic authentication assumes a trusted connection between client and server. Thus, the username and password are transmitted in clear text. More specifically, they are transmitted

using Base64 encoding, which is trivially easy to decode. This makes Basic authentication the wrong choice to use over a public network on its own.

Basic Authentication is a long-standing standard supported by nearly all browsers. It also imposes no special requirements on the server side -- users can authenticate against any NT domain, or even against accounts on the local machine. With SSL to shelter the security credentials while they are in transmission, you have an authentication solution that is both highly secure and quite flexible.

Digest Authentication :

The Digest authentication option was added in Windows 2000 and IIS 5.0. Like Basic authentication, this is an implementation of a technique suggested by Web standards, namely RFC 2069 (superceded by RFC 2617).

Digest authentication also uses a challenge/response model, but it is much more secure than Basic authentication (when used without SSL). It achieves this greater security not by encrypting the secret (the password) before sending it, but rather by following a different design pattern -- one that does not require the client to transmit the password over the wire at all.

Instead of sending the password itself, the client transmits a one-way message digest (a checksum) of the user's password, using (by default) the MD5 algorithm. The server then fetches the password for that user from a Windows 2000 Domain Controller, reruns the checksum algorithm on it, and compares the two digests. If they match, the server knows that the client knows the correct password, even though the password itself was never sent. (If you have ever wondered what the default ISAPI filter "md5filt" that is installed with IIS 5.0 is used for, now you know.

Integrated Windows Authentication :

Integrated Windows authentication (formerly known as NTLM authentication and Windows NT Challenge/Response authentication) can use either NTLM or Kerberos V5 authentication and only works with Internet Explorer 2.0 and later.

When Internet Explorer attempts to access a protected resource, IIS sends two WWW-Authenticate headers, Negotiate and NTLM.

    • If Internet Explorer recognizes the Negotiate header, it will choose it because it is listed first. When using Negotiate, the browser will return information for both NTLM and Kerberos. At the server, IIS will use Kerberos if both the client (Internet Explorer 5.0 and later) and server (IIS 5.0 and later) are running Windows 2000 and later, and both are members of the same domain or trusted domains. Otherwise, the server will default to using NTLM.

    • If Internet Explorer does not understand Negotiate, it will use NTLM.

So, which mechanism is used depends upon a negotiation between Internet Explorer and IIS. When used in conjunction with Kerberos v5 authentication, IIS can delegate security credentials among computers running Windows 2000 and later that are trusted and configured for delegation. Delegation enables remote access of resources on behalf of the delegated user.

Integrated Windows authentication is the best authentication scheme in an intranet environment where users have Windows domain accounts, especially when using Kerberos. Integrated Windows authentication, like digest authentication, does not pass the user's password across the network. Instead, a hashed value is exchanged.

Client Certificate Mapping :

A certificate is a digitally signed statement that contains information about an entity and the entity's public key, thus binding these two pieces of information together. A trusted organization (or entity) called a Certification Authority (CA) issues a certificate after the CA verifies that the entity is who it says it is. Certificates can contain different types of data. For example, an X.509 certificate includes the format of the certificate, the serial number of the certificate, the algorithm used to sign the certificate, the name of the CA that issued the certificate, the name and public key of the entity

requesting the certificate, and the CA's signature. X.509 client certificates simplify authentication for larger user bases because they do not rely on a centralized account database. You can verify a certificate simply by examining the certificate.
http://msdn.microsoft.com/library/default.asp?url=/library/en-us/vsent7/html/vxconIISAuthentication.asp

6 - IIS Isolation Levels?
Internet Information Server introduced the notion "Isolation Level", which is also present in IIS4 under a different name. IIS5 supports three isolation levels, that you can set from the Home Directory tab of the site's Properties dialog :
• Low (IIS Process):
ASP pages run in INetInfo.Exe, the main IIS process, therefore they are executed in-process. This is the fastest setting, and is the default under IIS4. The problem is that if ASP crashes, IIS crashes as well and must be restarted (IIS5 has a reliable restart feature that automatically restarts a server when a fatal error occurs).

• Medium (Pooled):
In this case ASP runs in a different process, which makes this setting more reliable: if ASP crashes IIS won't. All the ASP applications at the Medium isolation level share the same process, so you can have a web site running with just two processes (IIS and ASP process). IIS5 is the first Internet Information Server version that supports this setting, which is also the default setting when you create an IIS5 application. Note that an ASP application that runs at this level is run under COM+, so it's hosted in DLLHOST.EXE (and you can see this executable in the Task Manager).

• High (Isolated):
Each ASP application runs out-process in its own process space, therefore if an ASP application crashes, neither IIS nor any other ASP application will be affected. The downside is that you consume more memory and resources if the server hosts many ASP applications. Both IIS4 and IIS5 supports this setting: under IIS4 this process runs inside MTS.EXE, while under IIS5 it runs inside DLLHOST.EXE.
When selecting an isolation level for your ASP application, keep in mind that out-process settings - that is, Medium and High - are less efficient than in-process (Low). However, out-process communication has been vastly improved under IIS5, and in fact IIS5's Medium isolation level often deliver better results than IIS4's Low isolation. In practice, you shouldn't set the Low isolation level for an IIS5 application unless you really need to serve hundreds pages per second.

What is Web Farm ?
When we hosted our web Application on multiple web server under a load balancer call the Web Farm. This is generally used for heavy load web application where there are many user requests at a time. So When Web Application is hosted on Different IIS Server over a load balancer, Load balancer is responsible for distribute the load on different server.

What is Web Garden ?
A Web garden is configured on a single server by specifying multiple worker processes for an application pool. Web farms use multiple physical servers for supporting a single Web site.

What is the default Identity of an Application Pool ?
NetworkServices

What is the available Identity of an Application Pool ?
        In IIS 6.0 - NetworkServices | LocalService | LocalSystem
        In IIS 7.0 - NetworkServices | LocalService | LocalSystem | ApplicationPoolIdentity

What are the worker process for IIS 5.1 and IIS 6.0 and IIS 7.0 ?
        For IIS 5.1 > aspnet_wp.exe
        For IIS 6.0 > w3wp.exe
        For IIS 7.0 > w3wp.exe

What are the different type of application pool available in IIS 7.0 ?
        1. DefaultAppPool (Integrated)
        2. ClassicAppPool

Where is the default location for IIS Log files ?
        C:\WINDOWS\system32\LogFiles\W3SVC1

What is the use of aspnet_regiis -i command ?
        This is used automatically register the .NET Framework with your IIS.

How to check Installed .Net Version on IIS
        C:\WINDOWS\Microsoft.NET\Framework\v1.1.4322>aspnet_regiis.exe –lv

If there are multiple worker process running on IIS, then how can you attach a particular worker
process for application ?
        run cscript iisapi.vbs script to find out the process ID and Application Pool name . Based on
        the process Id for particular application I have to attache the process from Visual studio IDE.

Which Tool is used for Remote IIS Debugging ?
        Tools is : msvsmon.exe
        This is located at : \Microsoft Visual Studio 8\Common7\IDERemote Debuggerx86\

IIS Port numbers ?
        HTTP : 80 (default port for iis), SSL : 443,FTP : 21,SMTP : 25,POP2 : 109,POP3 :
110,IMAP : 143,NNTP : 119,LDAP : 89, DNS : 53,DHCP : 67

IIS Services ?
        1. www services
        2. FTP services
        3. SMTP services
        4. NNTP services

IIS Application pool ?
        Group of web applications are called application pool.
        An application pool is a group of one or more URLs that are served by a worker process or
        set of worker processes. Any Web directory or virtual directory can be assigned to an
        application pool. so that one webiste cannot be effected by other , if u used seperated
        application pool.

What is App Pool and App Domain? What is the difference between these two ?
        Application Pool is created the each and every website.
        Application Domain is created to one domain Purpose.

What is the properties of App Pool in IIS?

      1.Recycling

      2.Perfomance

      3.Health

      4.Identity

How do I stop and restart Internet services?

      By using the "IISRESET" command

How can I confirm that a server certificate is attached to a Web site?

      1.In IIS Manager, right-click the Web site, and click Properties.

      2.Click the Directory Security tab.

      3.Under Secure communications, if the View Certificate button is activated, there is a certificate attached to the Web site. If the button is not activated, you must attach a server certificate to the site to use the Secure Sockets Layer (SSL) features.

What is a Web service extension and how do I use the Web Service Extensions folder ? (IIS 6.0)

      The Web Service Extensions folder is the user interface for the new IIS 6.0 lockdown feature. This feature is a manifest of ISAPI extensions and CGIs with user-specified permissions, meaning, administrators must set the permissions to allow specific ISAPIs and CGIs to run on your server. Administrators can also specify the names of ISAPIs or CGIs that are forbidden to run on your server. Before loading an ISAPI extension .dll file or CGI .exe file, IIS checks this manifest for the permissions on the file. If the file is permitted to run, then the request proceeds normally. If the file is not permitted to run, then IIS returns a 404.2 error response to the client machine. The HTML page for a 404.2 error looks like a standard 404 error page, so the client machine processes the request as though the file did not exist. IIS logs the 404.2 error, which administrators can view to assess problems or potential threats against the server.

What is ISAPI Filter ?

      ISAPI filters are DLL files that can be used to modify and enhance the functionality provided by IIS. ISAPI filters always run on an IIS server, filtering every request until they find one they need to process. The ability to examine and modify both incoming and outgoing streams of data makes ISAPI filters powerful and flexible.

      Filters are registered at either the site level or the global level (that is, global filters apply to all sites on the IIS server), and are initialized when the worker process is started. A filter listens to all requests to the site on which it is installed.

      Both ISAPI filters and ISAPI extensions can only be developed using C/C++. Visual Studio comes with wizards that make ISAPI development fast and easy.

What is presentation layer responsible for in the OSI model ?

The presentation layer establishes the data format prior to passing it along to the network application's interface. TCP/IP networks perform this task at the application layer.

Does Windows Server 2003 support Ipv6 ?

Yes, run ipv6.exe from command line to disable it.

Can Windows Server 2003 function as a bridge ?

Yes, and it's a new feature for the 2003 product. You can combine several networks and devices connected via several adapters by enabling IP routing.

What's the difference between the basic disk and dynamic disk ?

The basic type contains partitions, extended partitions, logical drivers, and an assortment of static volumes;

The dynamic type does not use partitions but dynamically manages volumes and provides advanced storage options

What's a media pool ?

It is any compilation of disks or tapes with the same administrative properties.

How do you install recovery console ?

C:\i386\win32 /cmdcons, assuming that your Win server installation is on drive C.

What's new in Terminal Services for Windows 2003 Server ?

Supports audio transmissions as well, although prepare for heavy network load.

What scripts ship with IIS 6.0 ?

iisweb.vsb to create, delete, start, stop, and list Web sites,
iisftp.vsb to create, delete, start, stop, and list FTP sites,
iisdir.vsb to create, delete, start, stop, and display virtual directories,
iisftpdr.vsb to create, delete, start, stop, and display virtual directories under an FTP root,
iiscnfg.vbs to export and import IIS configuration to an XML file.

What's the name of the user who connects to the Web site anonymously ?

IUSR_computername

What secure authentication and encryption mechanisms are supported by IIS 6.0 ?

Basic authentication, Digest authentication, Advanced digest authentication, Certificate-based Web transactions that use PKCS #7/PKCS #10, Fortezza, SSL, Server-Gated Cryptography, Transport Layer Security

What's the relation between SSL and TLS ?

Transport Layer Security (TLS) extends SSL by providing cryptographic authentication.

What's the role of http.sys in IIS ?

It is the point of contact for all incoming HTTP requests. It listens for requests and queues them until they are all processed, no more queues are available, or the Web server is shut down.

Where's ASP cache located on IIS 6.0 ?

On disk, as opposed to memory, as it used to be in IIS 5.

What is socket pooling ?

Non-blocking socket usage, introduced in IIS 6.0. More than one application can use a given socket.

Describe the process of clustering with Windows 2003 Server when a new node is added ?

As a node goes online, it searches for other nodes to join by polling the designated internal network. In this way, all nodes are notified of the new node's existence. If other nodes cannot be found on a preexisting cluster, the new node takes control of the quorum resources residing on the shared disk that contains state and configuration data.

What applications are not capable of performing in Windows 2003 Server clusters ?

The ones written exclusively for NetBEUI and IPX.

What's a heartbeat ?

Communication processes between the nodes designed to ensure node's health.

What's a threshold in clustered environment ?

The number of times a restart is attempted, when the node fails.

You need to change and admin password on a clustered Windows box, but that requires rebooting the cluster, doesn't it ?

No, it doesn't. In 2003 environment you can do that via cluster.exe utility which does not require rebooting the entire cluster.

For the document of size 1 MB, what size would you expect the index to be with Indexing Service ?

150-300 KB, 15-30% is a reasonable expectation.

Doesn't the Indexing Service introduce a security flaw when allowing access to the index ?

No, because users can only view the indices of documents and folders that they have permissions for.

What's the typical size of the index ?

Less then 100K documents - up to 128 MB. More than that - 256+ MB.

Which characters should be enclosed in quotes when searching the index ?

&, @, $, #, ^, ( ), and |.

How would you search for C++ ?

Just enter C++, since + is not a special character (and neither is C).

What about Barnes&Noble ?

Should be searched for as Barnes'&'Noble.

Are the searches case-sensitive ?

No.

What's the order of precedence of Boolean operators in Microsoft Windows 2003 Server Indexing Service?

NOT, AND, NEAR, OR.

What's a vector space query ?

A multiple-word query where the weight can be assigned to each of the search words. For example, if you want to fight information on 'black hole', but would prefer to give more weight to the word hole, you can enter black[1] hole[20] into the search window.

What's a response queue ?

It's the message queue that holds response messages sent from the receiving application to the sender.

What's MQPing used for ?

Testing Microsoft Message Queue services between the nodes on a network.

Which add-on package for Windows 2003 Server would you use to monitor the installed software and license compliance ?

SMS (System Management Server).

Which service do you use to set up various alerts ?

MOM (Microsoft Operations Manager).

What languages does Windows Scripting Host support ?

VB, VBScript, JScript.