

MICROSOFT IIS 8.5

Internet Information Services

Day 2

A photograph showing a person from behind, wearing large black headphones, working on a laptop. The screen displays code or a terminal window. In the background, another person is visible at a desk, and there's a potted plant on the desk.

WHAT WE DISCUSSED LAST TIME

Day 1

Network basics

- DNS and records types, resolving, HTTP/S ports, ping, trace route.

IIS basics

- IIS History - EMWAC and older versions
- Install IIS 8.5 on Windows 10 and Windows 2012 R2
- Commands like “iisreset” and “inetmgr”
- Web platform installer
- Create default website

Bindings

- Create a second website
- Troubleshoot website
- Installations preparations for next module

A photograph showing a person from behind, wearing large black headphones, working on a laptop. The screen displays code or a technical interface. In the background, another person is visible at a desk, also working. The environment looks like a professional IT or software development office.

COURSE OUTLINE

Day 2

Module 3: Application pools

- Application pools overview
- Configure and manage application pools
- Default settings
- Advanced settings
- Lab 3

Module 4: Authentication

- Authentication introduction
- Anonymous authentication
- Basic and digest authentication
- Windows authentication
- Forms authentication
- Lab 4



COURSE OUTLINE

D a y 2

Module 5: SSL encryption

- HTTPS overview
- Installing an SSL certificate
- Backup and restore SSL certificate
- Trusting a self-signed certificate
- Lab 5

D a y 3

Module 6: IIS monitoring

- Worker processes monitoring
- Configure logging
- Request failed tracing
- Performance monitoring tool
- Lab 6

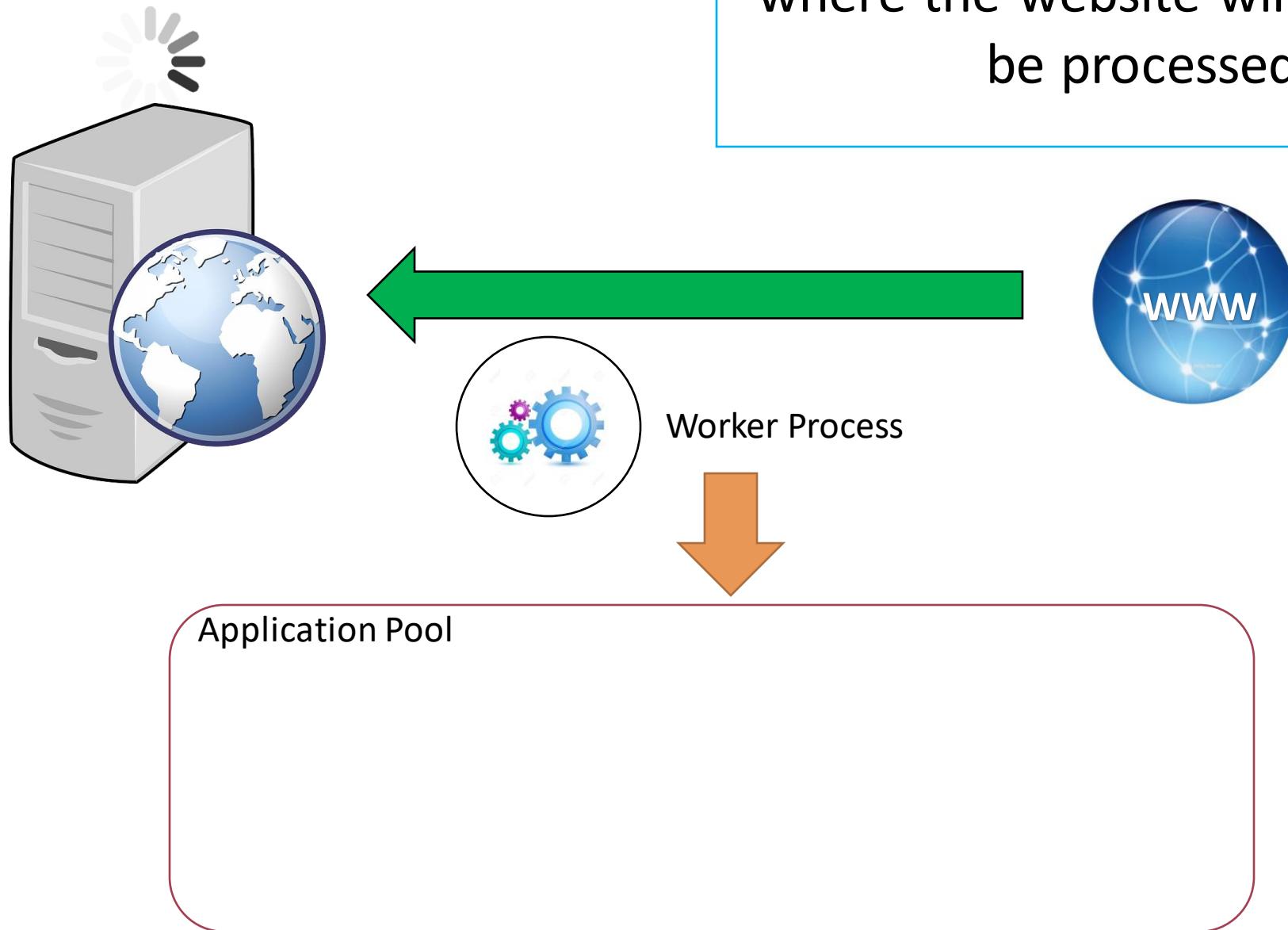


Module 3 -

APPLICATION POOLS

WHAT IS AN APP POOL?

WHAT IS AN APPLICATION POOL?





APPLICATION POOL

Create and assign pool

File View Help

Connections

- Start Page
- WIN-DRCU4V5GPHE (ZANKEL)
- Application Pools
- Sites
 - Default Web Site
 - web3.com
 - website1.com
 - website2.com

Actions

- Add Application Pool...
- Set Application Pool Defaults...
- Help

Application Pools

This page lets you view and manage the list of application pools on the server. Application pools are associated with worker processes, contain one or more applications, and provide isolation among different applications.

Name	Status	.NET CLR V...	Managed Pipel...	Identity	Applications
.NET v4.5	Started	v4.0	Integrated	ApplicationPoolId...	0
.NET v4.5 Classic	Started	v4.0	Classic	ApplicationPoolId...	0
DefaultAppPool	Started	v4.0	Integrated	ApplicationPoolId...	3
Test	Started	v4.0	Integrated	ApplicationPoolId...	1
web3.com	Started	v4.0	Integrated	ApplicationPoolId...	1
website1.com	Started	v4.0	Integrated	ApplicationPoolId...	0
website2.com	Started	v4.0	Integrated	ApplicationPoolId...	1

Features View Content View

Ready

File View Help

Connections

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Test	Started	v4.0	Integrated	ApplicationPoolId...	1
web3.com	Started	v4.0	Integrated	ApplicationPoolId...	1
website1.com	Started	v4.0	Integrated	ApplicationPoolId...	0
website2.com	Started	v4.0	Integrated	ApplicationPoolId...	1

Add Application Pool...
Set Application Pool Defaults...
Help

Features View Content View

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File View Help

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Test	Started	v4.0	Integrated	ApplicationPoolId... 1	
web3.com	Started	v4.0	Integrated	ApplicationPoolId... 1	
website1.com	Started	v4.0	Integrated	ApplicationPoolId... 0	
website2.com	Started	v4.0	Integrated	ApplicationPoolId... 1	

Add Application Pool

Name:

.NET CLR version:

Managed pipeline mode:

Start application pool immediately

Actions

- Add Application Pool...
- Set Application Pool Defaults...
- Help



File View Help

Connections

website1.com Home

Actions

Explore Edit Permissions... Edit Site Bindings... Basic Settings... View Applications View Virtual Directories Manage Website Restart Start Stop Browse Website Browse www.website1.com on *:80 (http) Advanced Settings... Configure Failed Request Tracing... Limits... Install Application From Gallery Help

Ready

ASP.NET

.NET Authorization .NET Compilation .NET Error Pages .NET Globalization .NET Profile .NET Roles .NET Trust Levels .NET Users Application Settings Connection Strings Machine Key Pages and Controls Providers Session State SMTP E-mail

Default document Directory Browsing Error Pages Failed Request Tra... Handler HTTP Redirect HTTP Response ISAPI Filters Logging MIME Types Modules Output Caching Request Filtering SSL Settings

Manage Website >

- Restart
- Start
- Stop
- Browse

Advanced Settings...

Features View Content View

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File View Help

Connections

website1.com Home

Filter: Go Show All Group by: Area

ASP.NET

- .NET Authorizat... .NET Compilation .NET Error Pages .NET Globalization .NET Profile .NET Roles .NET Trust .NET Users Application Connection Machine Key

IIS

- Authentic... Compression Default Document Directory Browsing Error Pages

Management

- Configurat... IIS Manager Permissions Web Platform...

Actions

- Explore Edit Permissions...
- Edit Site Bindings... Basic Settings...
- View Applications View Virtual Directories
- Manage Website
- Restart Start Stop
- Browse Website Browse www.website1.com on *:80 (http)
- Advanced Settings...
- Configure Failed Request Tracing... Limits...
- Install Application From Gallery
- Help

Advanced Settings

(General)

Application Pool	website1.com
Bindings	http://*:80:www.website1.com
ID	3
Name	website1.com
Physical Path	C:\inetpub\Website1
Physical Path Credentials	
Physical Path Credentials Logon	ClearText
Preload Enabled	False

Behavior

Enabled Protocols	http
-------------------	------

Application Pool

[applicationPool] Configures this application to run in the specified application pool.

OK Cancel

Features View Content View

Ready

File View Help

Connections

website1.com Home

Filter: Go Show All Group by: Area

ASP.NET

- .NET Authorizat... .NET Compilation .NET Error Pages .NET Globalization .NET Profile .NET Roles .NET Trust .NET Users Application Connection Machine Key

IIS

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Actions

- Explore Edit Permissions...
- Edit Site Bindings... Basic Settings...
- View Applications View Virtual Directories
- Manage Website
- Restart Start Stop
- Browse Website Browse www.website1.com on *:80 (http)
- Advanced Settings...
- Configure Failed Request Tracing... Limits...
- Install Application From Gallery
- Help

Advanced Settings

(General)

Application Pool website1.com
Bindings http://*:80/www.website1.com
ID 3
Name website1.com
Physical Path C:\inetpub\Website1

Select Application Pool

Application pool:

- website1.com
- .NET v4.5
- .NET v4.5 Classic
- DefaultAppPool
- Test**
- webs.com
- website1.com
- website2.com

OK Cancel

Application Pool [applicationPool] Configures this application to run in the specified application pool.

OK Cancel

Features View Content View

Ready

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File View Help

Connections

website1.com Home

Filter: Go Show All Group by: Area

ASP.NET

- .NET Authorizat... .NET Compilation .NET Error Pages .NET Globalization .NET Profile .NET Roles .NET Trust .NET Users Application Connection Machine Key

IIS

- Authentic... Compression Default Document Directory Browsing Error Pages

Management

- Configurat... IIS Manager Permissions Web Platform...

Advanced Settings

(General)

Application Pool	website1.com
Bindings	http*:80:www.website1.com
ID	3
Name	website1.com
Physical Path	C:\inetpub\Website1

Select Application Pool

Application pool: Test

Properties:

.Net CLR Version: 4.0
Pipeline mode: Integrated

OK Cancel

Application Pool

[applicationPool] Configures this application to run in the specified application pool.

OK Cancel

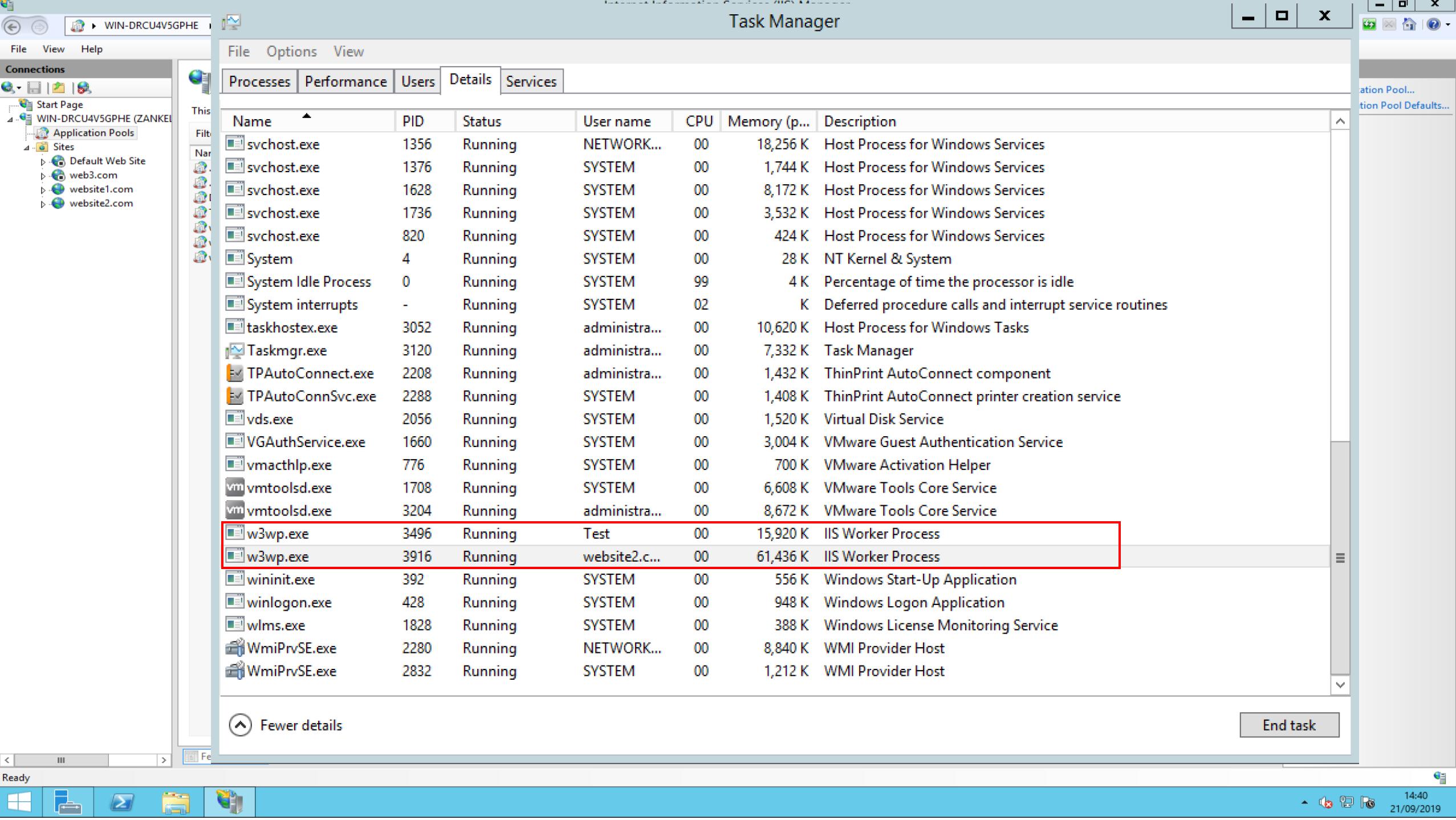
Features View Content View

Actions

- Explore
- Edit Permissions...
- Edit Site
- Bindings...
- Basic Settings...
- View Applications
- View Virtual Directories

Manage Website

- Restart
- Start
- Stop
- Browse Website
- Browse www.website1.com on *:80 (http)
- Advanced Settings...
- Configure
- Failed Request Tracing...
- Limits...
- Install Application From Gallery
- Help



File View Help

Connections

Start Page
WIN-DRCU4V5GPHE (ZANKEL)

Actions

Open Feature

Manage Server

Restart

Start

Stop

View Application Pools

View Sites

Change .NET Framework Version

Get New Web Platform Components

Help

WIN-DRCU4V5GPHE Home

Filter: Go Show All Group by: Area

ASP.NET

.NET Authorization .NET Compilation .NET Error Pages .NET Globalization .NET Trust Levels Application Settings Connection Strings Machine Key Pages and Controls Providers Session State SMTP E-mail

IIS

Authentication Compression Default Document Directory Browsing Error Pages Failed Request Tracing Handler Mappings HTTP Redirect HTTP Response ISAPI and CGI Restrictions ISAPI Filters Logging MIME Types Modules Output Caching Request Filtering

Server Certificates

Worker Process View information about worker processes and about currently executing requests inside of the worker processes

Management

Configuration Editor Feature Delegation IIS Manager Permissions IIS Manager Users Management Service Shared Configuration Web Platform...

Features View Content View

Ready

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File View Help

Connections

- Start Page
- WIN-DRCU4V5GPHE (ZANKEL)
- Application Pools
- Sites
 - Default Web Site
 - web3.com
 - website1.com
 - website2.com

Worker Processes

Use this feature to view information about worker processes running on the Web server and about requests running inside those worker processes

Application Pool Name	Process Id	State	CPU %	Private Bytes (KB)	Virtual Bytes (KB)
Test	820	Running	0.00	123,908.00	755,180.00
website2.com	1112	Running	0.00	123,684.00	755,192.00

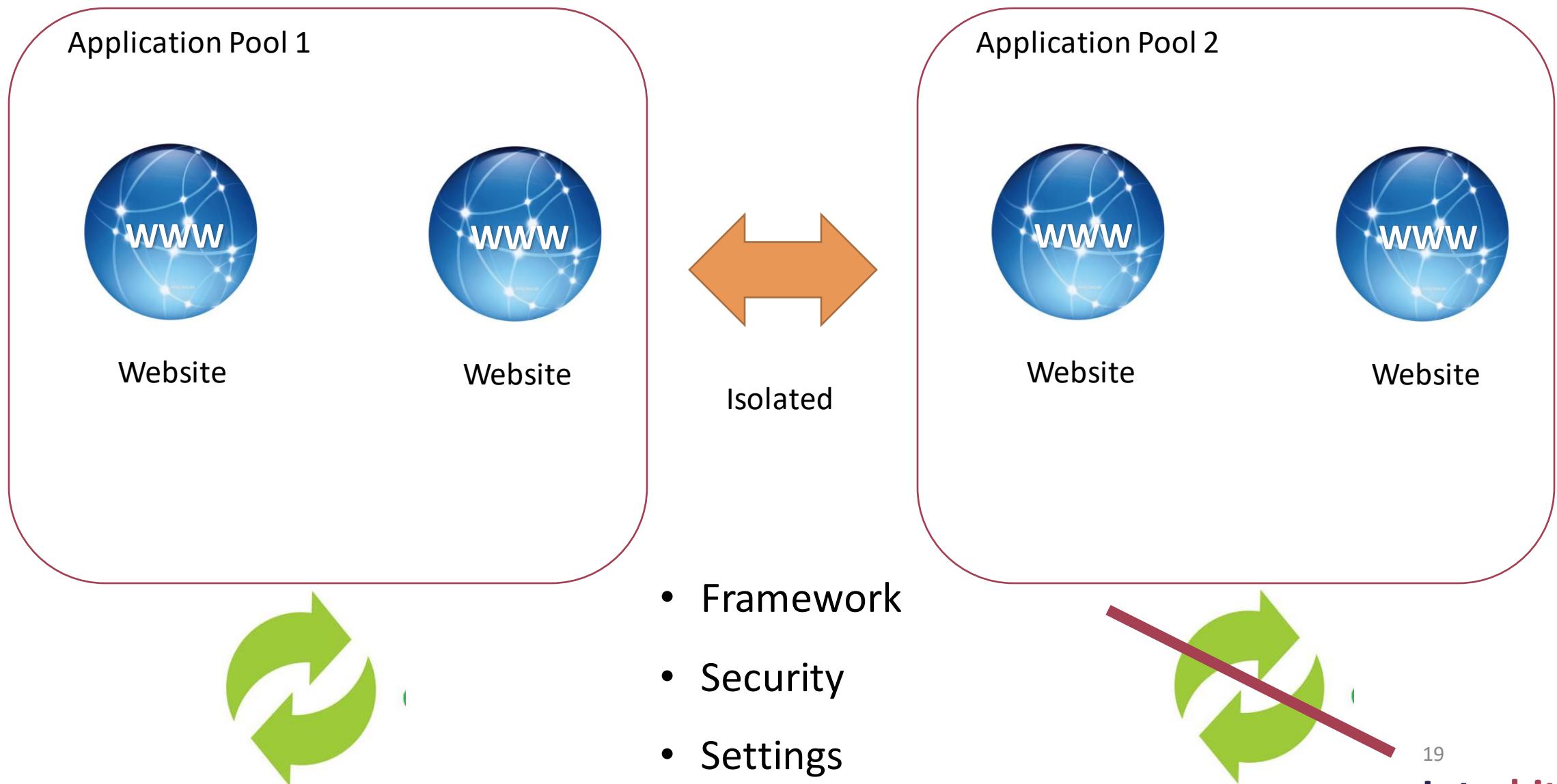
Actions
Help

Features View Content View

Ready



WHAT IS AN APPLICATION POOL?



WHAT IS AN APPLICATION POOL?



Website



Services



Contact

Application Pool 1

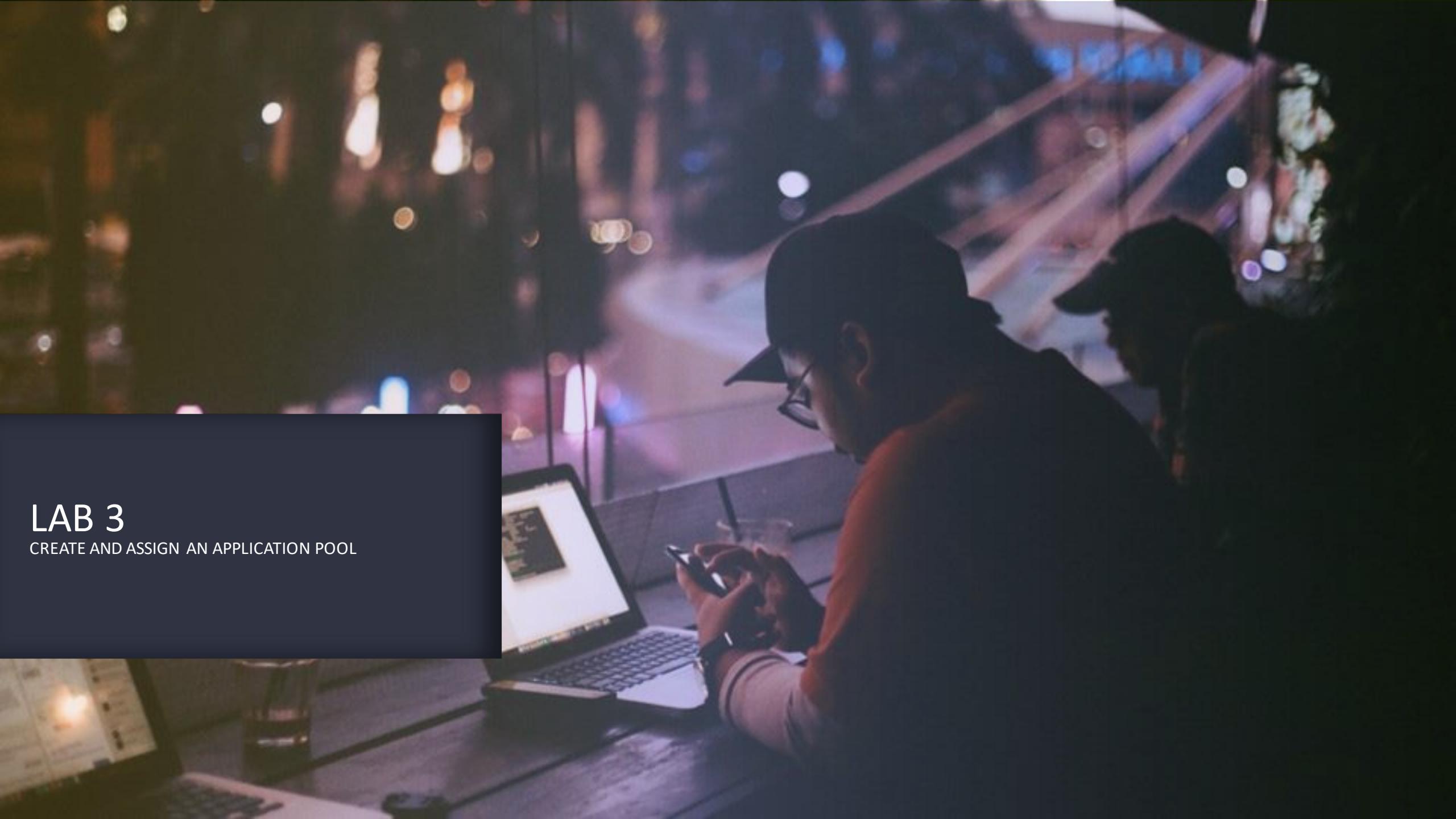


Application Pool 2



LAB 3

CREATE AND ASSIGN AN APPLICATION POOL



Create and assign an Application Pool

1. Open IIS manager
2. Right click on Application Pools → Add application pool
3. Set the name of the application pool to Test.
4. Set the framework and the pipeline mode.

In general – if your application is using .net, then select the appropriate framework from the list.

If the application is using .net, then select non-managed code.

5. Set the pipeline mode to integrated.
Classic is used for IIS 6.0 for older websites.
6. Right click on Website1
7. Choose Manage Website → Advanced Settings
8. On the top you will find Application pool → Click on the 3 dots on the right (...)
9. Choose Test application pool → Click “OK”
10. Open website1.com & website2.com using the browser

11. Open task manager
12. Click the details tab → Scroll down and see that w3wp.exe is associated with website1.com
This is the identity the application pool is running with.
13. Right click on website2.com
14. Repeat steps 7 - 12

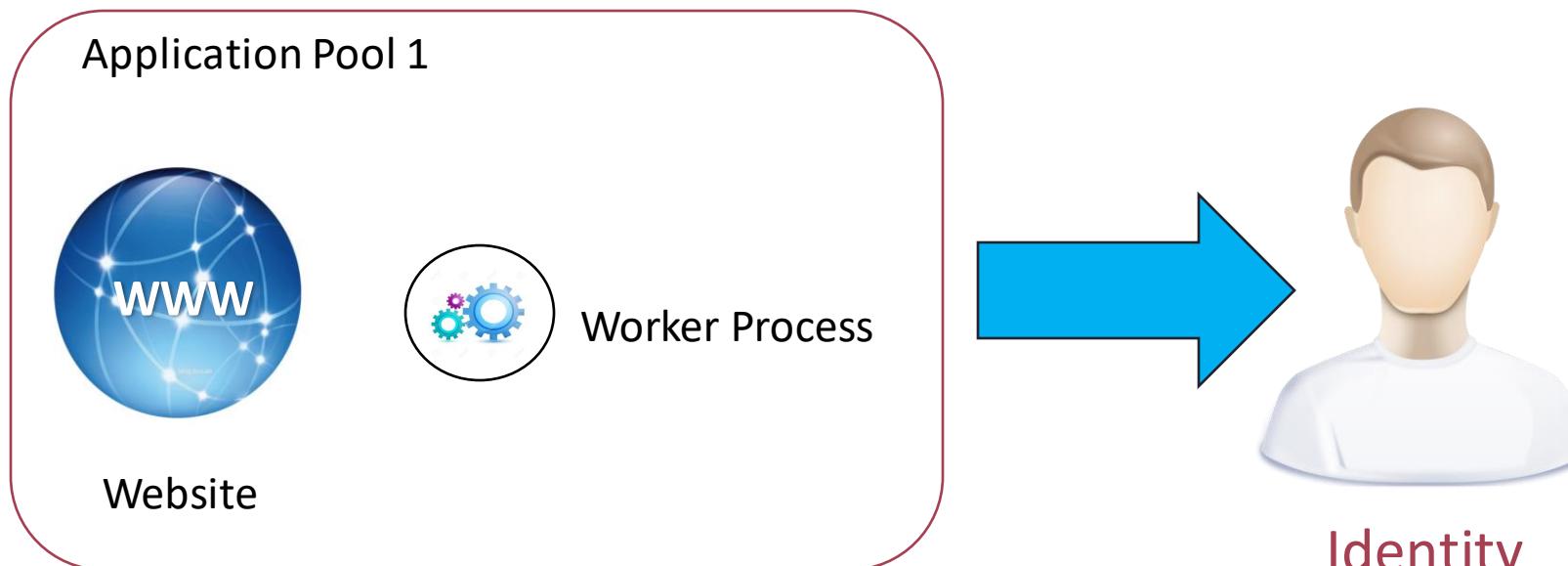
LAB 3

CREATE AND ASSIGN AN APPLICATION POOL

Questions:

- A. How many worker processes do you see now?
- B. What is the pool name for each of the worker processes?

APPLICATION POOL IDENTITIES



- **Built-in accounts:**
 - Local System
 - Local Service
 - NetworkService
 - ApplicationPool
- **Custom account**

The asp.net application is executed within the Worker Process using a certain **windows identity**.

By default the identity selected is the application pool identity.

File View Help

Connections

Start Page WIN-DRCU4V5GPHE Application Pools

Application Pools

This page lets you view and manage the list of application pools on the server. Application pools are associated with worker processes, contain one or more applications, and provide isolation among different applications.

Filter: Go Show All Group by: No Grouping

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.NET v4.5	Started	v4.0	Integrated	ApplicationPoolId...	0
.NET v4.5 Classic	Started	v4.0	Classic	ApplicationPoolId...	0
DefaultAppPool	Started	v4.0	Integrated	ApplicationPoolId...	4
Test	Started	v4.0	Integrated	ApplicationPoolId...	1
web3.com	Stopped	v4.0	Integrated	ApplicationPoolId...	1
website1.com	Started	v4.0	Integrated	ApplicationPoolId...	0
website2.com	Started	v4.0	Integrated	ApplicationPoolId...	1
WSEnrollmentP...	Started	v4.0	Integrated	ApplicationPoolId...	1

Actions

Add Application Pool... Set Application Pool Defaults... Application Pool Tasks Start Stop Recycle... Edit Application Pool Basic Settings... Recycling... Advanced Settings... Rename Remove View Applications Help

Features View Content View

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File View Help

Connections

Start Page WIN-DRCU4V5GPHE (ZANKEL) Application Pools Sites Default Web Site web3.com website1.com website2.com

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.NET v4.5 Classic	Started	v4.0	Classic	ApplicationPoolId...	0
DefaultAppPool	Started	v4.0	Integrated	ApplicationPoolId...	4
Test	Started	v4.0	Integrated	ApplicationPoolId...	1
web3.com	Stopped	v4.0	Integrated	ApplicationPoolId...	1
website1.com	Started	v4.0	Integral	Add Application Pool...	
website2.com	Started	v4.0	Integral	Set Application Pool Defaults...	
WSEnrollmentP...	Started	v4.0	Integral	Start	
				Stop	
				Recycle...	
				Basic Settings...	
				Recycling...	
				Advanced Settings...	
				Rename	
				Remove	
				View Applications	
				Help	

Actions

- Add Application Pool...
- Set Application Pool Defaults...
- Application Pool Tasks
 - Start
 - Stop
 - Recycle...
- Edit Application Pool
 - Basic Settings...
 - Recycling...
 - Advanced Settings...
 - Rename
- Remove
- View Applications
- Help

Features View Content View

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File View Help

Connections

Start Page WIN-DRCU4V5GPHE (ZANKEL) Application Pools Sites Default Web Site web3.com website1.com website2.com

Application Pools

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.NET v4.5 Classic	Started	v4.0	Classic	Appl...	
DefaultAppPool	Started	v4.0	Integrated	Appl...	
Test	Started	v4.0	Integrated	Appl...	
web3.com	Stopped	v4.0	Integrated	Appl...	
website1.com	Started	v4.0	Integrated	Appl...	
website2.com	Started	v4.0	Integrated	Appl...	
WSEnrollmentP...	Started	v4.0	Integrated	Appl...	

Actions

Add Application Pool... Set Application Pool Defaults... Application Pool Tasks Start Stop Recycle... Edit Application Pool Basic Settings... Recycling... Advanced Settings... Rename Remove View Applications Help

Advanced Settings

(General)

- .NET CLR Version: v4.0
- Enable 32-Bit Applications: False
- Managed Pipeline Mode: Integrated
- Name: website1.com
- Queue Length: 1000
- Start Mode: OnDemand

CPU

- Limit (percent): 0
- Limit Action: NoAction
- Limit Interval (minutes): 5
- NUMA Node Affinity Mode: Soft
- NUMA Node Assignment: MostAvailableMemory
- Processor Affinity Enabled: False
- Processor Affinity Mask: 4294967295
- Processor Affinity Mask (64-bit c: 4294967295)
- Processor Group: 0

Process Model

- Generate Process Model Event L

Name

[name] The application pool name is the unique identifier for the application pool.

OK Cancel

Features View Content View

Ready

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File View Help

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website1.com	Started	v4.0	Integrated	Appl...	
website2.com	Started	v4.0	Integrated	Appl...	
WSEnrollmentP...	Started	v4.0	Integrated	Appl...	

Advanced Settings

Process Model

Generate Process Model Event L

Identity ApplicationPoolIdentity

- Idle Time-out (minutes) 20
- Idle Time-out Action Terminate
- Load User Profile False
- Maximum Worker Processes 1
- Ping Enabled True
- Ping Maximum Response Time i 90
- Ping Period (seconds) 30
- Shutdown Time Limit (seconds) 90
- Startup Time Limit (seconds) 90

Process Orphaning

Enabled False

Executable

Executable Parameters

Rapid-Fail Protection

"Service Unavailable" Response HttpLevel

Enabled True

Identity

[identityType, username, password] Configures the application pool to run as built-in account, i.e. Application Pool Identity (recommended), Network Service, Local System, Local Service, or as a specific user identity.

OK Cancel

Features View Content View

Actions

- Add Application Pool...
- Set Application Pool Defaults...
- Application Pool Tasks
 - Start
 - Stop
 - Recycle...
- Edit Application Pool
 - Basic Settings...
 - Recycling...
 - Advanced Settings...
 - Rename
- Remove
- View Applications
- Help

Ready

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File View Help

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WSEnrollmentP...	Started	v4.0	Integrated	Appl...	

Advanced Settings

Process Model

Generate Process Model Event L

Identity ApplicationPoolIdentity

Idle Time-out (minutes) 20

Idle Time-out Action Terminate

Application Pool Identity

Built-in account:

ApplicationPoolIdentity LocalService LocalSystem NetworkService ApplicationPoolIdentity

Identity [identityType, username, password] Configures the application pool to run as built-in account, i.e. Application Pool Identity (recommended), Network Service, Local System, Local Service, or as a specific user identity.

OK Cancel

Features View Content View

Actions

Add Application Pool... Set Application Pool Defaults... Application Pool Tasks Start Stop Recycle... Edit Application Pool Basic Settings... Recycling... Advanced Settings... Rename Remove View Applications Help

Ready

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File View Help

Connections

- Start Page
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website2.com	Started	v4.0	Integrated	Appl...	
WSEnrollmentP...	Started	v4.0	Integrated	Appl...	

Advanced Settings

Process Model

Generate Process Model Event L

Identity ApplicationPoolIdentity

Idle Time-out (minutes) 20

Idle Time-out Action Terminate

Application Pool Identity

Built-in account: ApplicationPoolIdentity

Custom account: Set...

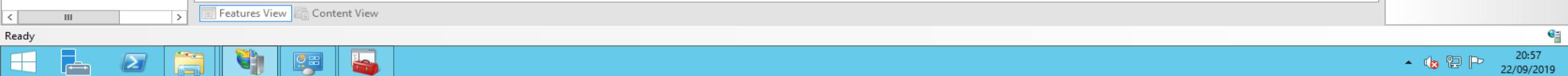
OK Cancel

Identity [identityType, username, password] Configures the application pool to run as built-in account, i.e. Application Pool Identity (recommended), Network Service, Local System, Local Service, or as a specific user identity.

OK Cancel

Actions

- Add Application Pool...
- Set Application Pool Defaults...
- Application Pool Tasks
 - Start
 - Stop
 - Recycle...
- Edit Application Pool
 - Basic Settings...
 - Recycling...
 - Advanced Settings...
 - Rename
- Remove
- View Applications
- Help



File View Help

Connections

Start Page WIN-DRCU4V5GPHE (ZANKEL) Application Pools Sites Default Web Site web3.com website1.com website2.com

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WSEnrollmentP...	Started	v4.0	Integrated	Appl...	

Advanced Settings

Process Model

Generate Process Model Event L

Identity ApplicationPoolIdentity

Idle Time-out (minutes) 20

Idle Time-out Action Terminate

Set Credentials

User name:

Password:

Confirm password:

OK Cancel

Identity

[identityType, username, password] Configures the application pool to run as built-in account, i.e. Application Pool Identity (recommended), Network Service, Local System, Local Service, or as a specific user identity.

OK Cancel

Actions

Add Application Pool... Set Application Pool Defaults... Application Pool Tasks Start Stop Recycle... Edit Application Pool Basic Settings... Recycling... Advanced Settings... Rename Remove View Applications Help

Features View Content View

Ready

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APPLICATION POOLS IDENTITIES



Identity

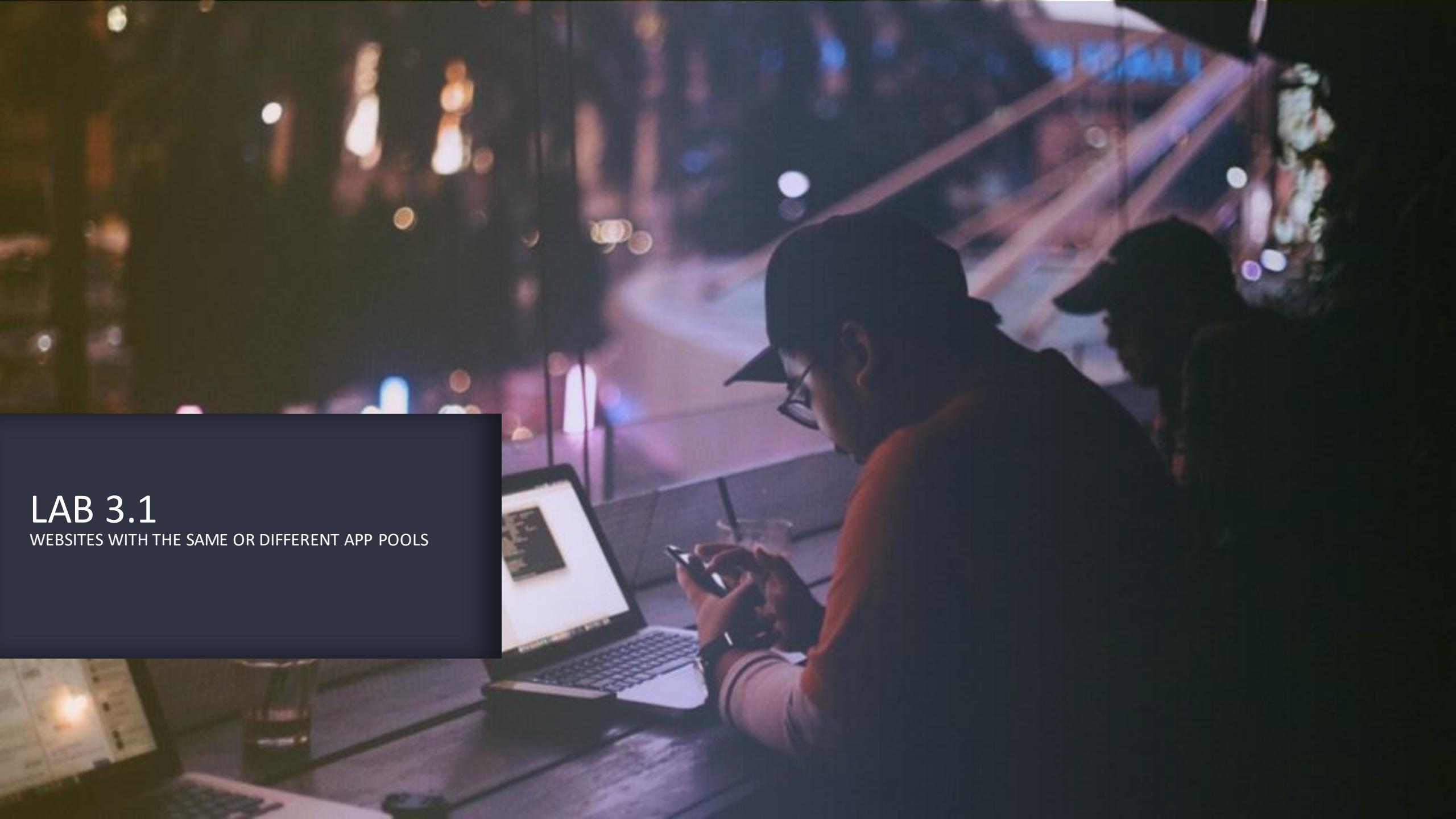
- **Built-in accounts:**

- **Local System:** High privilege and **can** access network resources
 - NT AUTHORITY\SYSTEM
- **Local service:** Less privilege that **can** access network resources with specific user
 - NT AUTHORITY\LOCAL SERVICE
- **NetworkService:** Less privilege that **can** access network resources with anonymous user.
 - NT AUTHORITY\NETWORK
- **ApplicationPool:** Created when you create a new pool, with least privileges.

Using a less privilege account with your application is a good security practice to prevent users from hacking your system if your application has certain bugs.

LAB 3.1

WEBSITES WITH THE SAME OR DIFFERENT APP POOLS



Run multiple websites in the same application pool

1. Copy website1 & 2 folders from our class share.
2. Recreate website1 & 2 websites on IIS.
3. Go to the location of Website2.com in c:\inetpub.
4. Review the code of the Default.aspx.vb
5. Browse to website2.com and check the new session status: It should state: True.
6. Refresh the browser - It should now state: False.
7. In IIS Manager → Right click on website2.com
8. Choose Manage Website → Advanced settings
9. Change the application pool to website1.com
(Now both websites are running on the same application pool)
10. Browse to website2.com and verify it's working.

Let's assume that website1 had a problem and we had to recycle website1 application pool:

11. Click on Application Pools
12. Right click on website1.com pool → Recycle

13. Go back to the browser
14. Refresh website1.com

* What is the “New Session” status?

15. Refresh website2.com

** What is the “New Session” status?

*** Why does it happen?

LAB 3.1.1

RUN MULTIPLE WEBSITES IN THE SAME APP POOL

Two website with different application pool

1. In IIS Manager → Right click on website2.com
2. Choose Manage Website → Advanced settings
3. Change the application pool to website2.com
4. Repeat steps 2 & 3 for website1.com with website1 pool.
(Now each website should be using a different app pool)
5. Browse to website1.com and check the new session status.
6. Refresh website1.com page → Status should be false.
7. Browse to website2.com and check the new session status.
8. Right click on website1.com pool → Recycle

* Did the recycle affect website2.com?

** Why is that?

LAB 3.1.2

TWO WEBSITE WITH DIFFERENT APPLICATION POOL

Multiple application pools with the same website

1. In IIS Manager → expand website2.com
2. Right click “Account”
3. Choose “Convert to application”
4. You can choose a different AppPool for that application.

This way you can select a different application pool for a folder.

5. Right click “Account” again.
6. Click on “Remove”.
7. Click on “Yes” to revert back to folder.

LAB 3.1.3

MULTIPLE APPLICATION POOLS WITH THE SAME WEBSITE



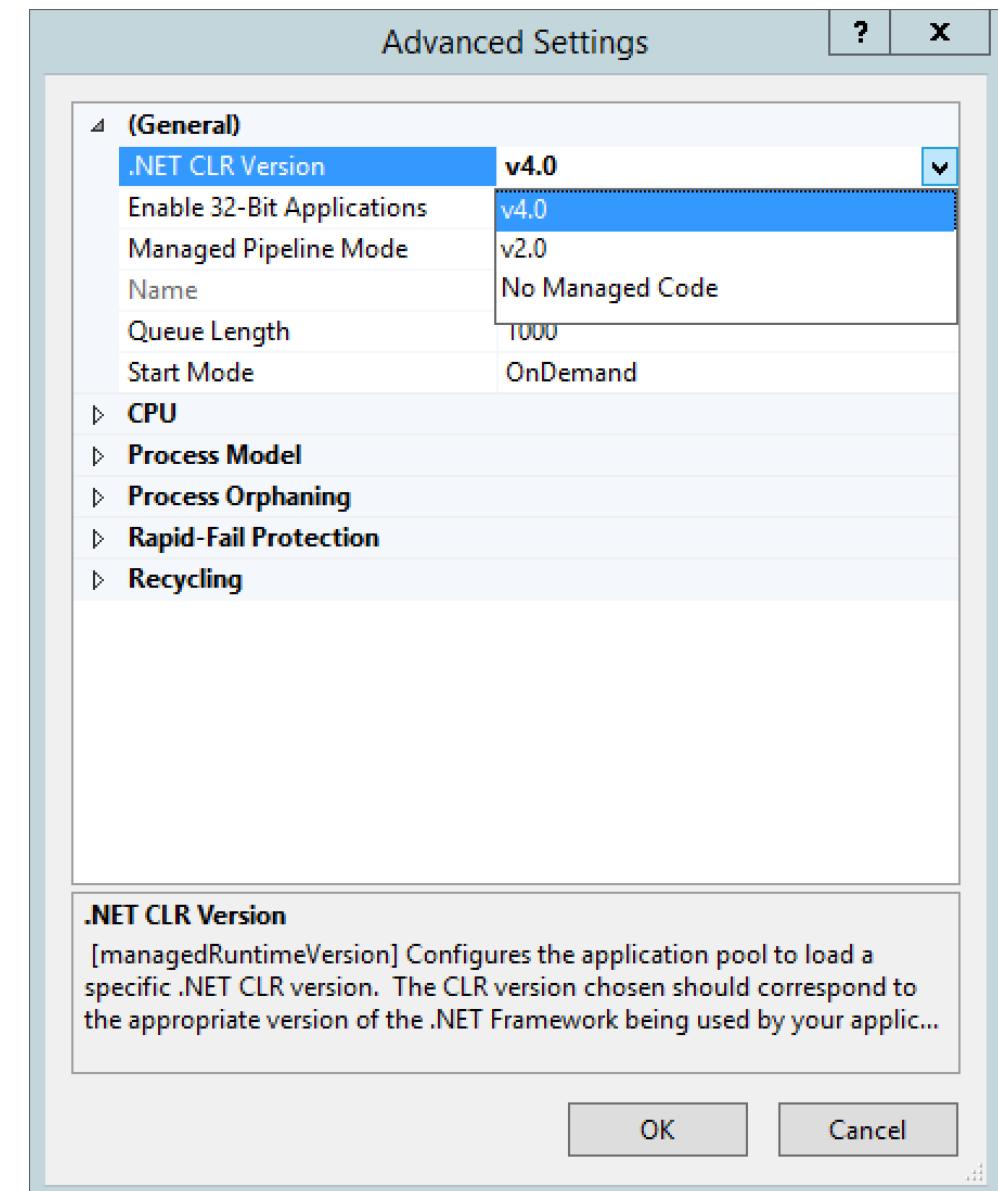
APPLICATION POOLS

A d v a n c e d S e t t i n g s

APPLICATION POOLS

General

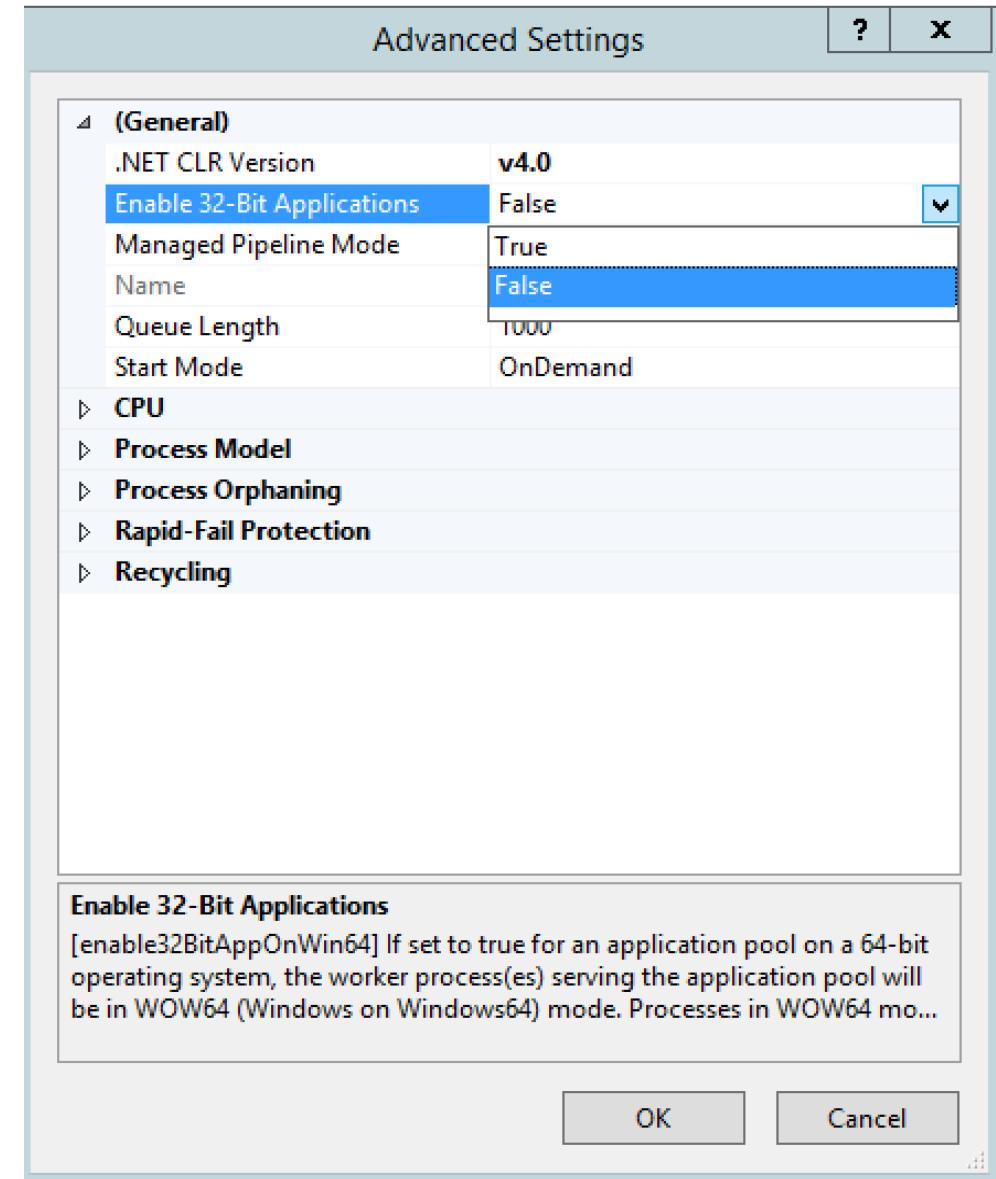
- .NET CLR Version



APPLICATION POOLS

General

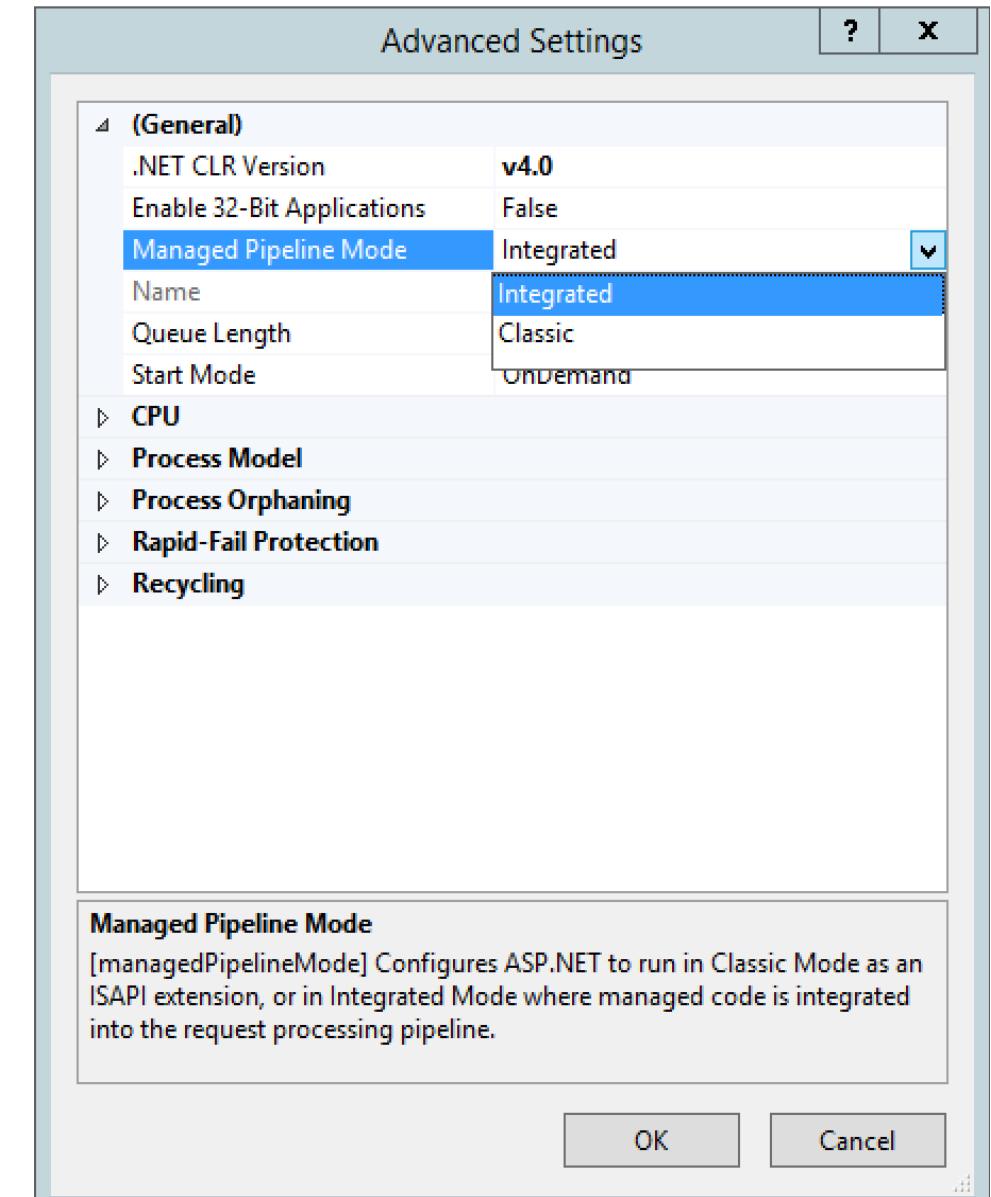
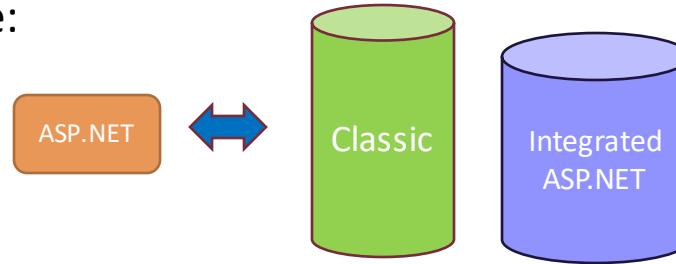
- .NET CLR Version
- Enabled 32-bit applications



APPLICATION POOLS

General

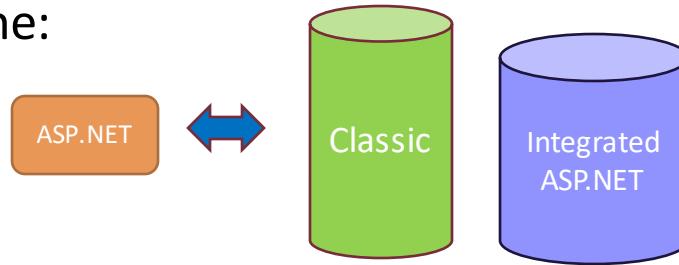
- .NET CLR Version
- Enabled 32-bit applications
- Managed pipeline:



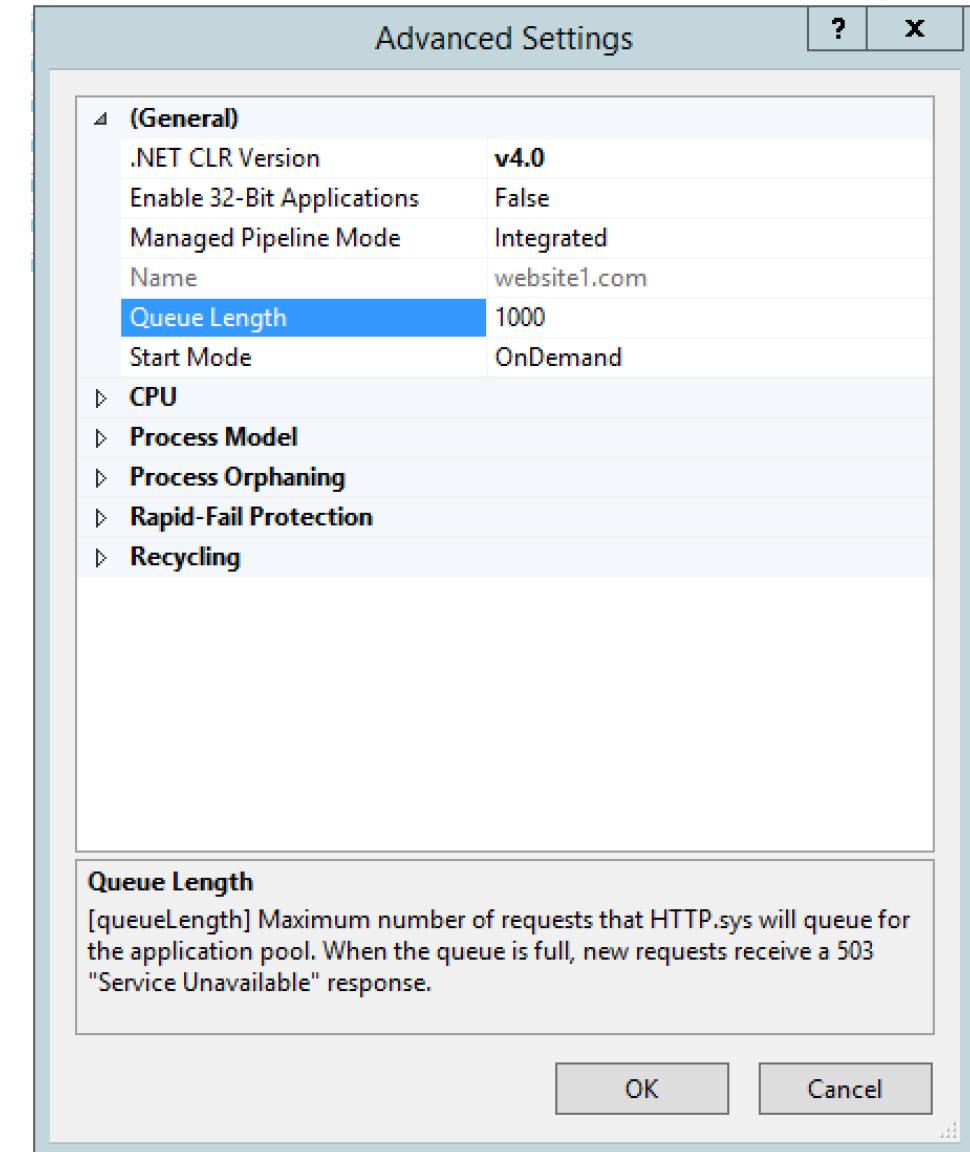
APPLICATION POOLS

General

- .NET CLR Version
- Enabled 32-bit applications
- Managed pipeline:



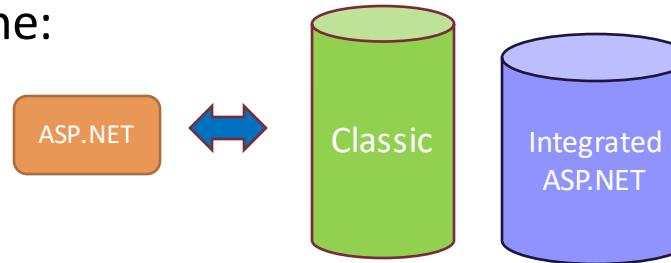
- Name
- Queue Length



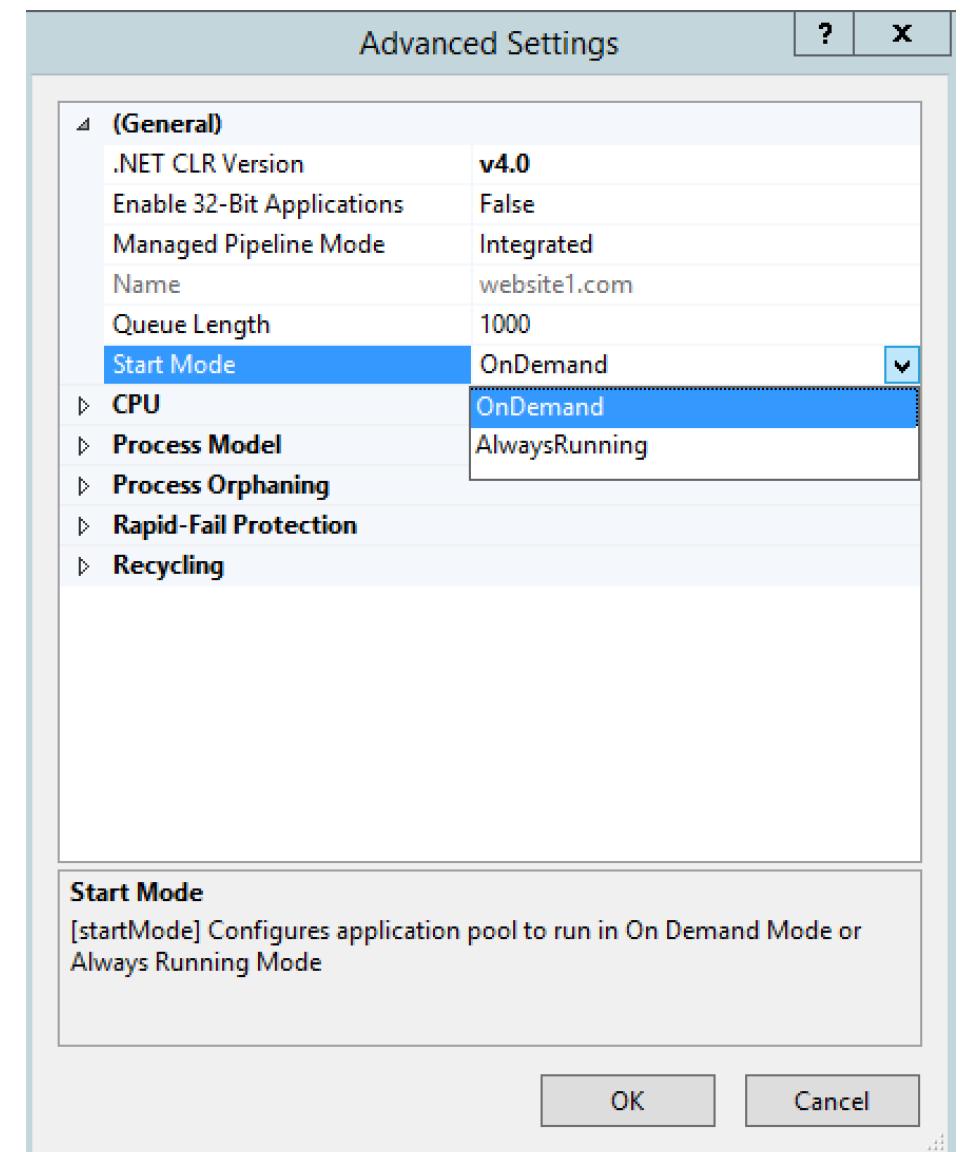
APPLICATION POOLS

General

- .NET CLR Version
- Enabled 32-bit applications
- Managed pipeline:



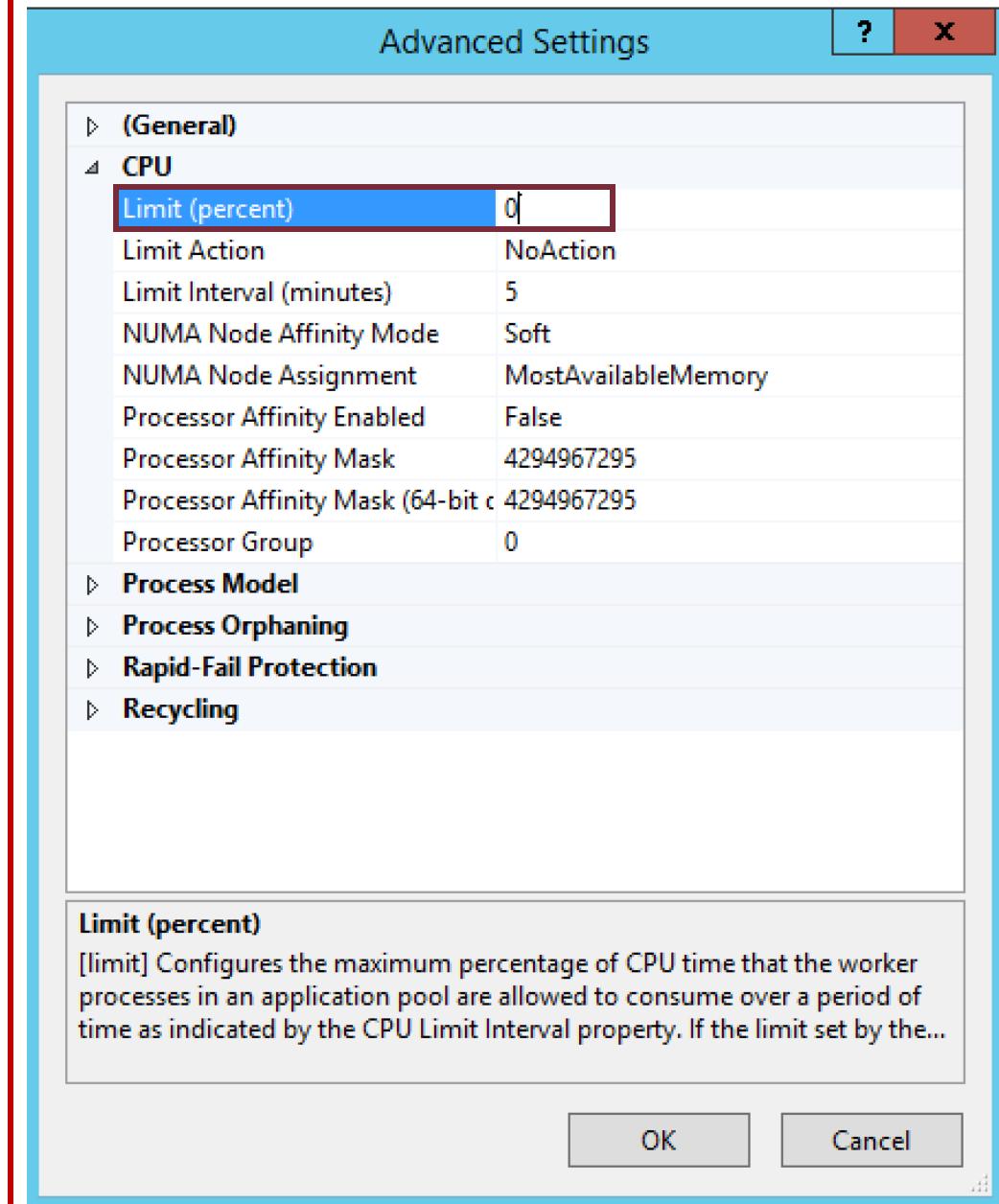
- Name
- Queue Length
- Start Mode



APPLICATION POOLS

C P U

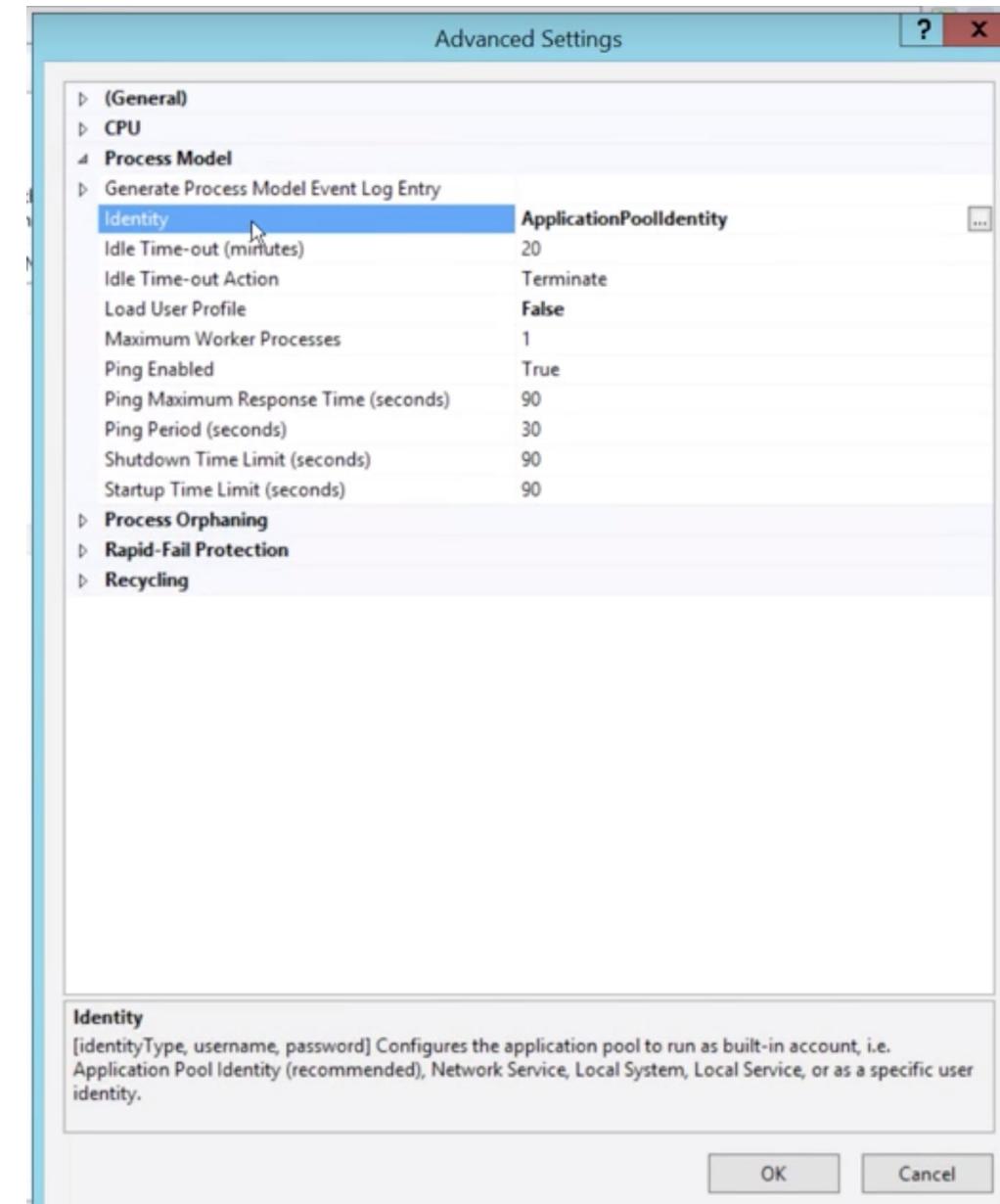
- Limit: Maximum CPU percentage allowed
- Limit Action: Action taken when CPU reaches the limit.
- Limit Interval: Reset the time between monitoring
- Processor Affinity: If true, forces the pool to run on a specific CPU (in multi-processor servers)
- Processor Mask: Hexadecimal value pointing to a specific CPU



APPLICATION POOLS

Processor Model

- Identity: The identity that the pool is using
- Idle time out: Set to Zero in production environments
- Load user profile
- Maximum worker processes: Allows using multiple processes For the same web application pool.
- Ping enabled: Health monitoring
- Ping Maximum Response Time
- Ping Period
- Shutdown Time Limit
- Startup Time limit



APPLICATION POOLS

Process Orphaning

Process Orphaning :

This, if set to true will set an unresponsive process is set to orphaned state and not terminated so you can debug and troubleshoot.

Executable : Run a certain command when process is orphaned. useful to generate a dump file for the process



Manager

Advanced Settings

(General)

CPU

Process Model

Process Orphaning

Enabled True

Executable

Executable Parameters

Rapid-Fail Protection

Recycling

Executable Parameters
[orphanActionParams] Parameters for the executable that is run when a worker process is abandoned (orphaned). For example, "-g -p %1%" is appropriate if NTSD is the executable invoked for debugging worker process failures.

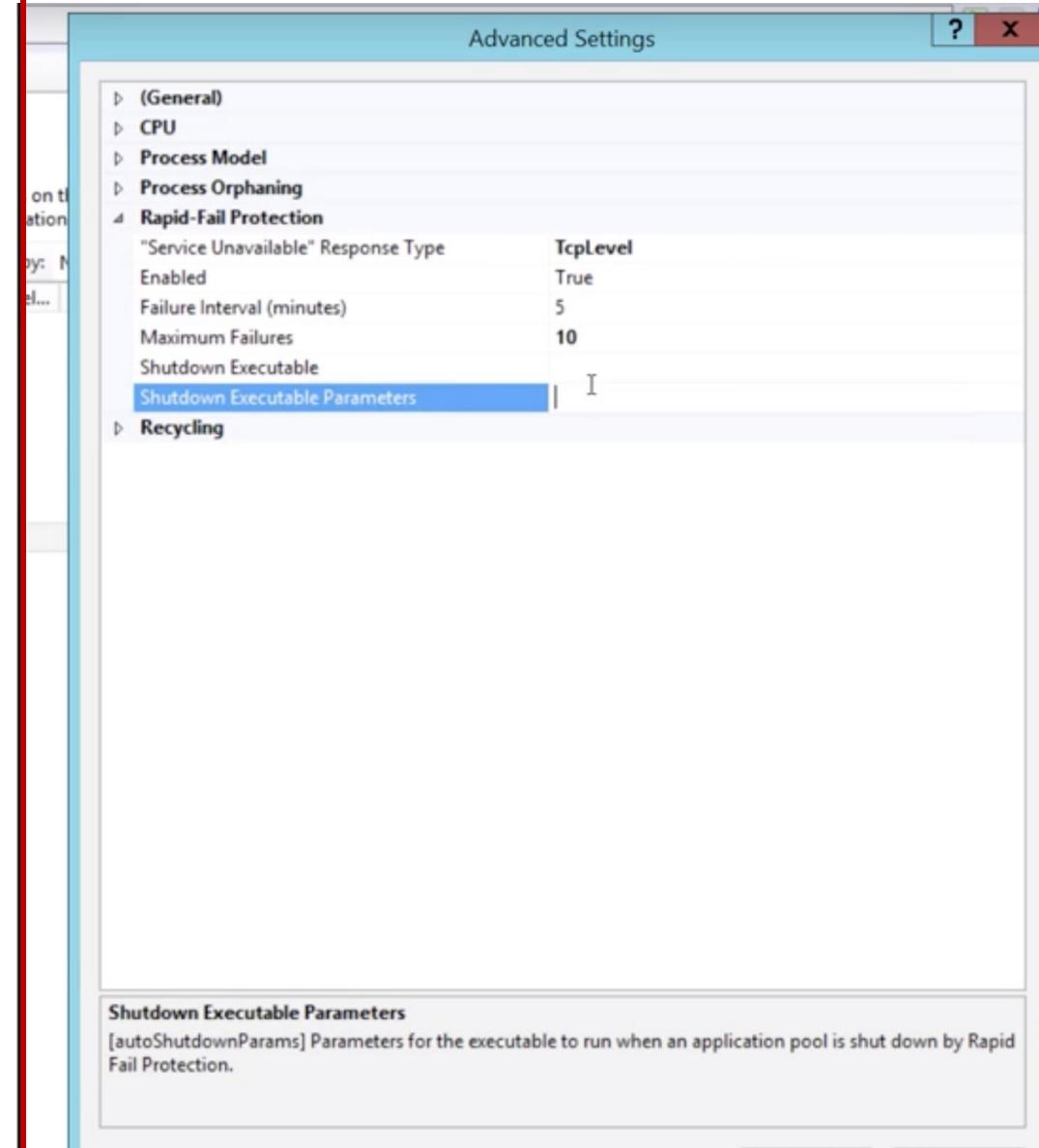
OK Cancel

11:49 PM 9/13/2017

APPLICATION POOLS

R a p i d f a i l p r o t e c t i o n

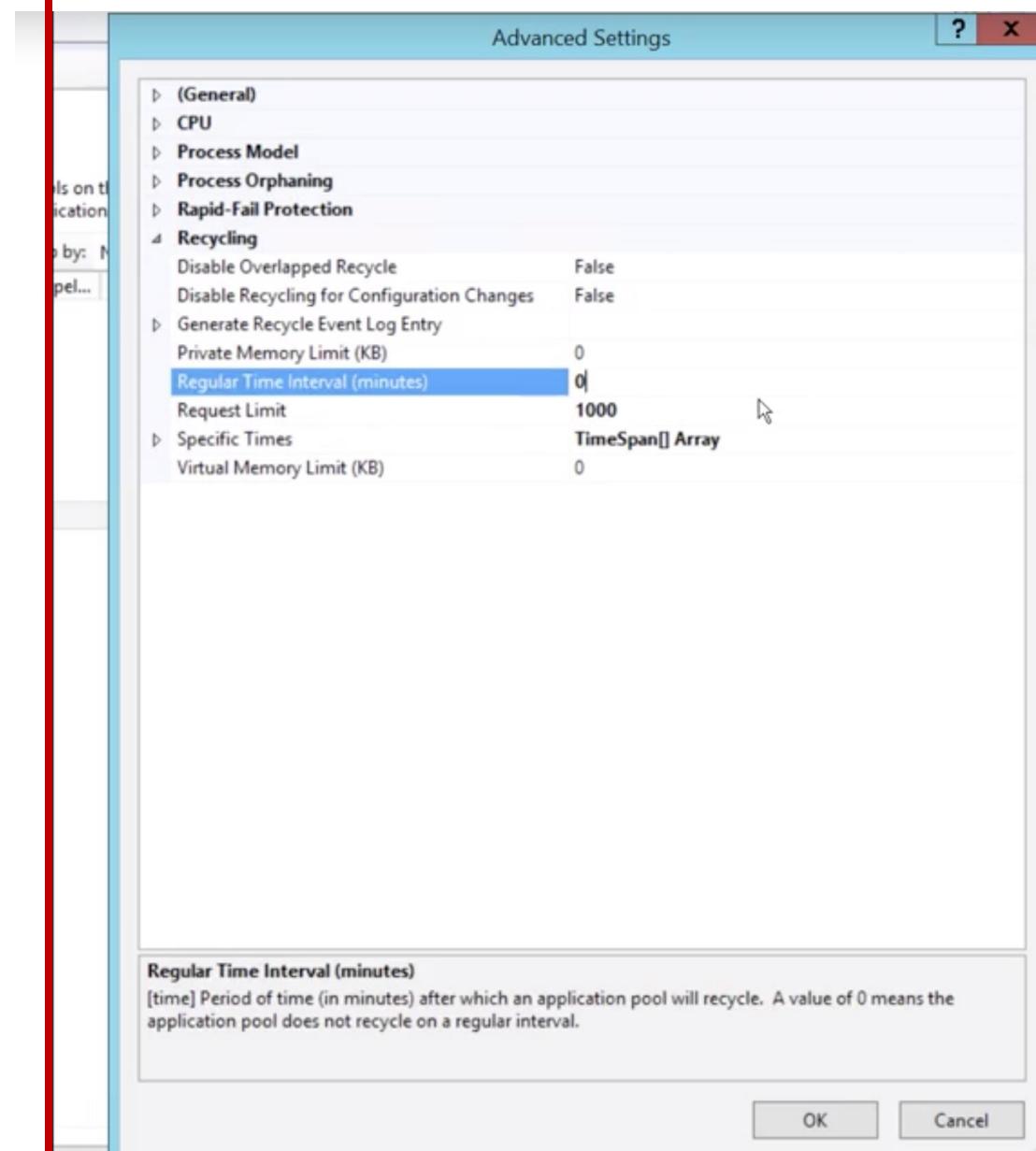
- Service unavailable :
 - HttpLevel or TcpLevel
 - ↓
 - 503 error
 - ↓
 - Reset connection
- Enabled : Application terminates if there is a certain number of crashes in a certain interval of time.
- Shutdown Executable: run a certain executable when application shutdowns.



APPLICATION POOLS

Recycling

- **Private memory** : Allowed memory when the process recycles.
- **Regular time interval**
- **Request limit** : Maximum requests that pool can handle before it recycles (0 means unlimited)



APPLICATION POOLS

Default Settings

Module 4 -

AUTHENTICATION

WHAT IS AUTHENTICATION?



REVIEW OF AUTHENTICATION TYPES

Authentication Types:

Basic

Integrated

Digest

Anonymous

MANAGING AUTHENTICATION

Method	Features
Anonymous Authentication	<ul style="list-style-type: none">Allows any user to access any public content without providing a user name and password
ASP.NET Impersonation Authentication	<ul style="list-style-type: none">Runs your ASP.NET application under a security context different from the default security context for ASP.NET application
Basic Authentication	<ul style="list-style-type: none">Requires users to provide a valid user name and password to access content
Client Certificate Mapping	<ul style="list-style-type: none">Lets you automatically authenticate users who log on with client certificates
Digest Authentication	<ul style="list-style-type: none">Digest authentication uses a Windows domain controller to authenticate users
Forms Authentication	<ul style="list-style-type: none">Uses redirection to forward unauthenticated users to a form where they can enter credentials
Windows Authentication	<ul style="list-style-type: none">Clients authenticate using the NTLM or Kerberos protocols

Module 5 -

SSL ENCRYPTION

SECURE SOCKET L?

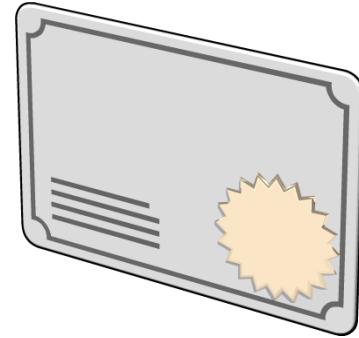




SSL CONFIGURATION

IIS SSL Configuration Steps

1. Get an appropriate certificate
2. Create an HTTPS binding on a site
3. Test by making an request to the site
4. Optionally configure SSL options, e.g. making SSL a requirement



► Choose Certificate:
Known Trusted CA
Local CA
Self-Signed



TYPES OF SSL CERTIFICATES

DOMAIN **VALIDATION**

- Encryption
- Validation of domain control
- Padlock in browser
- Issued in minutes

ORGANIZATION **VALIDATION**

- Authentication of organization
- Proof of applicant's right to request cert for domain
- Organization details in Certificate Info

EXTENDED **VALIDATION**

- Stringnet,
- industry-standardized authentication of organization
- Business-beneficial green address bar in browser

A Domain Validated SSL Certificate (DV SSL) comes with encryption and it is considered the easiest to obtain among all SSL certificates.

An Organization Validation SSL certificate used to validate company/business/organization.

Extended Validation SSL Certificates offer a top-notch level of safety and security that ultimately enhances customer confidence.



TYPES OF SSL CERTIFICATES



Wildcard SSL Certificate

A Wildcard SSL Certificate is designed to secure a domain name along with an unlimited number of sub-domains, which means a user can protect multiple sub-domains under a single certificate.



Multi-Domain (SAN) SSL Certificate

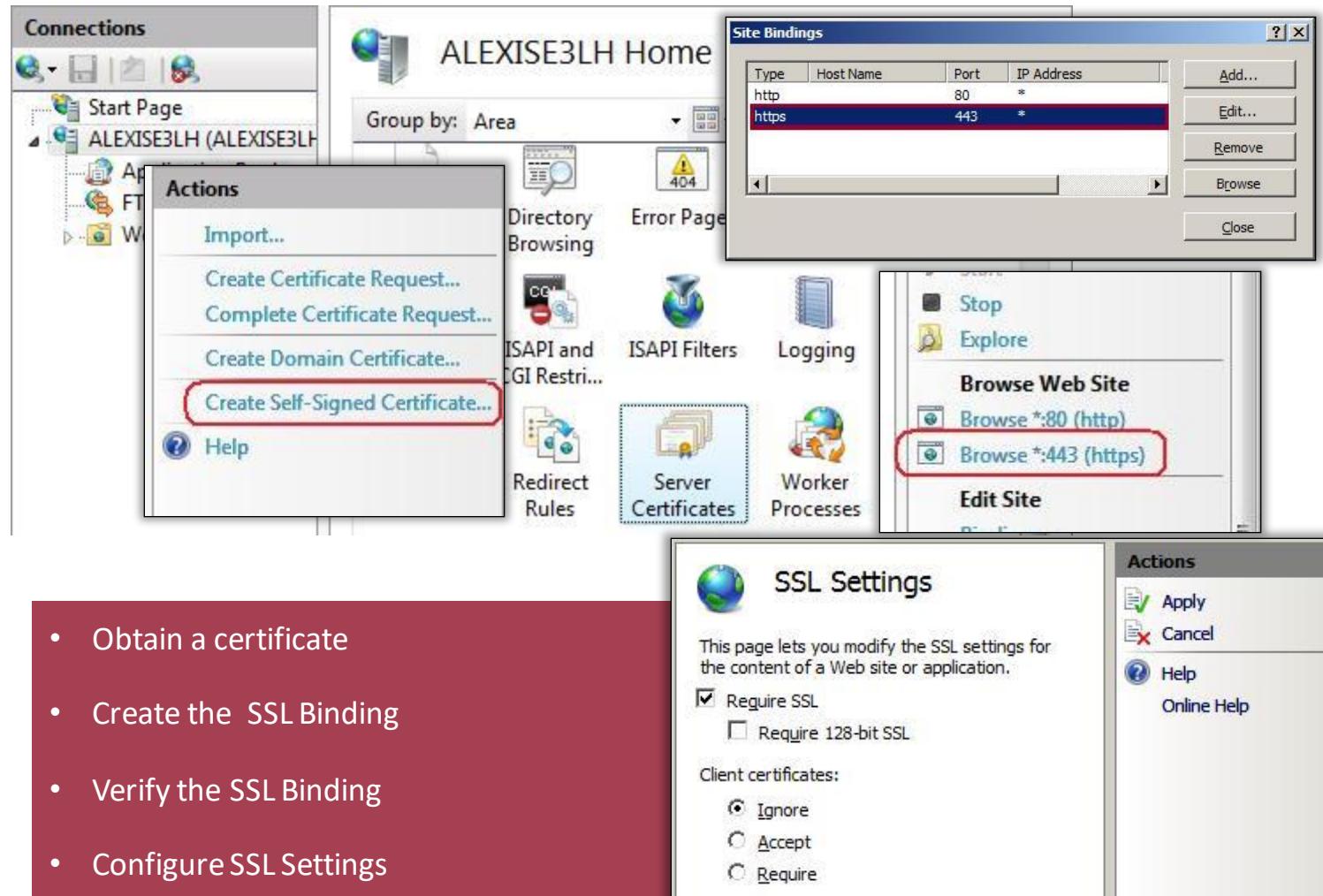
Multi-domain (SAN) is a built-in feature that comes with an SSL certificate. This lets users secure multiple domains under a single certificate.



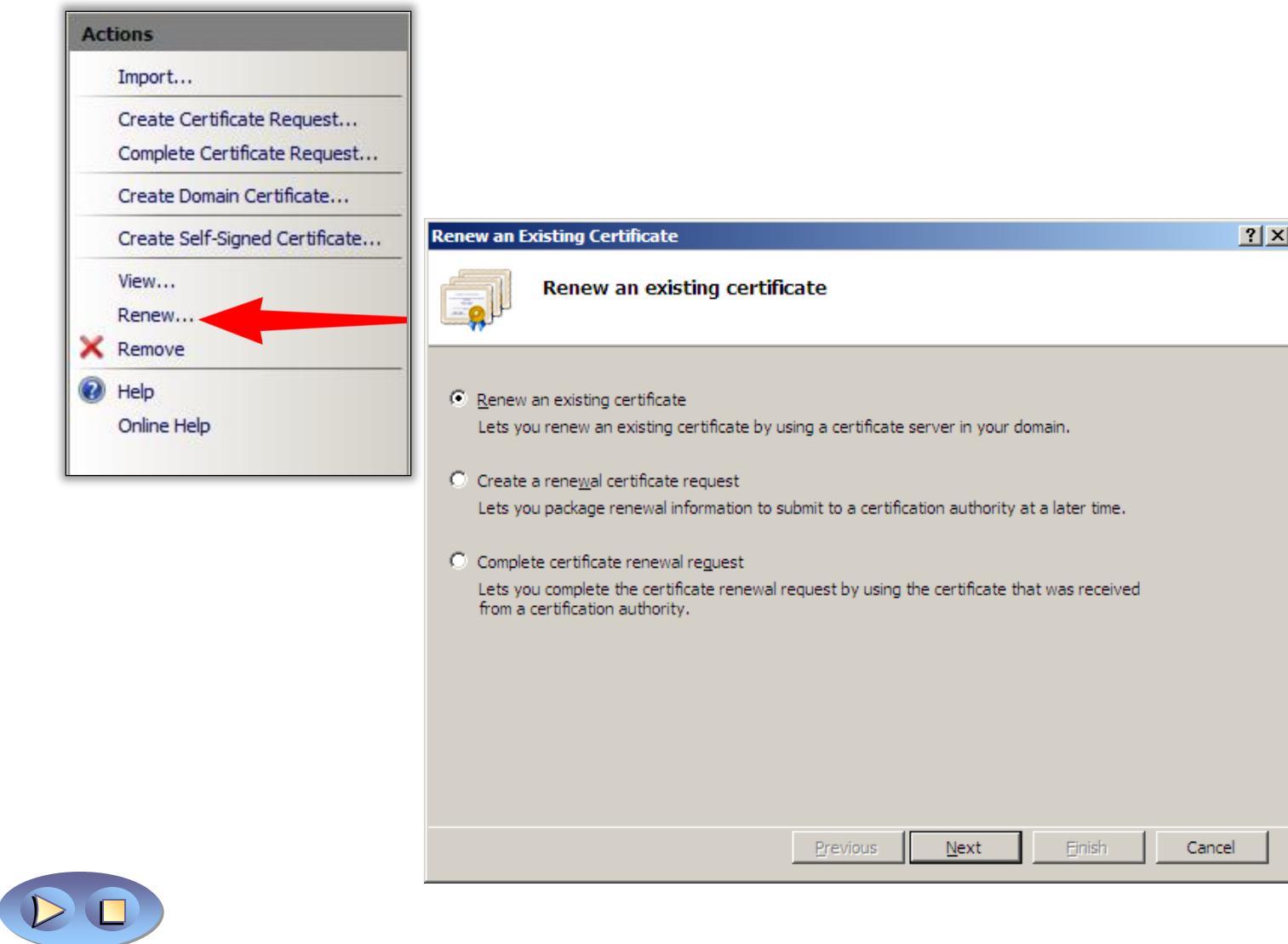
Multi-Domain Wildcard SSL Certificate

A Multi-Domain Wildcard SSL Certificate is fabricated with combined features of both wildcard and multi-domain SSL certificates.

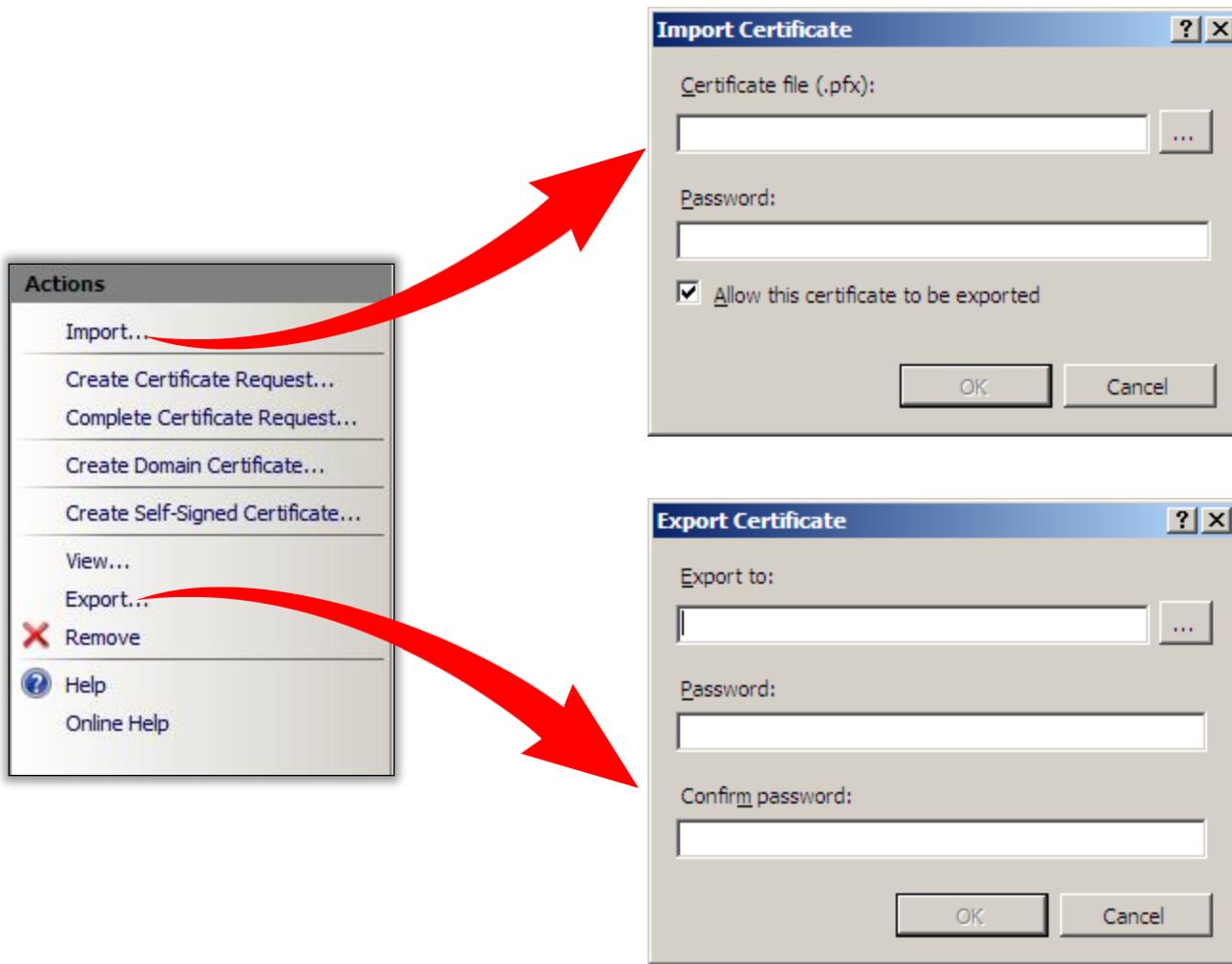
REQUESTING SSL CERTIFICATES



RENEWING SSL CERTIFICATES



IMPORTING AND EXPORTING CERTIFICATES



THANK YOU

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