System.Net.SocketPermissionAttribute Class

[ILAsm]

```
.class public sealed serializable SocketPermissionAttribute extends
System.Security.Permissions.CodeAccessSecurityAttribute
```

[C#]

```
public sealed class SocketPermissionAttribute: CodeAccessSecurityAttribute
```

Assembly Info:

- *Name:* System
- *Public Key:* [00 00 00 00 00 00 00 00 04 00 00 00 00 00 00 00]
- *Version:* 2.0.x.x
- *Attributes:*
    - CLSCompliantAttribute(true)

Type Attributes:

- AttributeUsageAttribute(AttributeTargets.Assembly | AttributeTargets.Class | AttributeTargets.Struct | AttributeTargets.Constructor | AttributeTargets.Method, AllowMultiple=true, Inherited=false)

Summary

Used to declaratively specify security actions to control socket connections.

Inherits From: System.Security.Permissions.CodeAccessSecurityAttribute

Library: Networking

Thread Safety: All public static members of this type are safe for multithreaded operations. No instance members are guaranteed to be thread safe.

Description

The properties of a `System.Net.SocketPermissionAttribute` are required to have non-null values. Once set, the values of the properties cannot be changed.

[*Note:* The details of a socket connection are specified using the properties of the current instance. For example, to secure a socket connection to port 80, set the `System.Net.SocketPermissionAttribute.Port` property equal to "80".

The security information declared by a security attribute is stored in the metadata of the attribute target, and is accessed by the system at run-time. Security attributes are used for declarative security only. For imperative security, use the corresponding permission class, `System.Net.SocketPermission`.

The allowable `System.Net.SocketPermissionAttribute` targets are determined by the

`System.Security.Permissions.SecurityAction` passed to the constructor.

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SocketPermissionAttribute(System.Security.Permissions.SecurityAction) Constructor

```
[ILAsm]
public rtspecialname specialname instance void .ctor(valuetype 
System.Security.Permissions.SecurityAction action)

[C#]
public SocketPermissionAttribute(SecurityAction action)
```

Summary

Constructs and initializes a new instance of the `System.Net.SocketPermissionAttribute` class with the specified `System.Security.Permissions.SecurityAction` value.

Parameters

Parameter	Description
action	A `System.Security.Permissions.SecurityAction` value.

Permissions

Permission	Description
System.ArgumentException	*action* is not a valid `System.Security.Permissions.SecurityAction` value.

SocketPermissionAttribute.CreatePermission() Method

```
[ILAsm]
.method public hidebysig virtual class System.Security.IPermission
CreatePermission()

[C#]
public override IPermission CreatePermission()
```

Summary

Returns a `System.Net.SocketPermission` that contains the security information of the current instance.

Return Value

A `System.Net.SocketPermission` object with the security information of the current instance.

Description

[*Note:* This method overrides `System.Security.Permissions.SecurityAttribute.CreatePermission`.

Applications typically do not call this method; it is intended for use by the system.

The security information described by a security attribute is stored in the metadata of the attribute target, and is accessed by the system at run-time. The system uses the object returned by this method to convert the security information of the current instance into the form stored in metadata.

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Exceptions

Exception	**Condition**
System.ArgumentException	One or more of the current instance's `System.Net.SocketPermissionAttribute.Access`, `System.Net.SocketPermissionAttribute.Host`, `System.Net.SocketPermissionAttribute.Transport` or `System.Net.SocketPermissionAttribute.Port` properties is `null`.

SocketPermissionAttribute.Access Property

[ILAsm]

```
.property string Access { public hidebysig specialname instance string
get_Access() public hidebysig specialname instance void set_Access(string
value) }
```

[C#]

```
public string Access { get; set; }
```

Summary

Gets or sets the network access method specified by the current instance.

Property Value

A `System.String` containing a network access method allowed by the current instance. Valid values are "Accept" and "Connect".

Description

This property is write-once. Once this property has been set to a non-null value, attempts to set this property to new value cause a `System.ArgumentException`.

Valid values for this property correspond to `System.Net.NetworkAccess` enumeration values.

Exceptions

Exception	Condition
System.ArgumentException	`System.Net.SocketPermissionAttribute.Access` is being set and is not `null`.

SocketPermissionAttribute.Host Property

```
[ILAsm]
.property string Host { public hidebysig specialname instance string
get_Host() public hidebysig specialname instance void set_Host(string
value) }

[C#]
public string Host { get; set; }
```

Summary

Gets or sets the DNS host name or IP address specified by the current instance.

Property Value

A `System.String` containing a DNS host name or IP address.

Description

This property is write-once. Once this property has been set to a non-null value, attempts to set this property to new value cause a `System.ArgumentException`.

Exceptions

Exception	Condition
System.ArgumentException	`System.Net.SocketPermissionAttribute.Host` is being set and is not `null`.

SocketPermissionAttribute.Port Property

```
[ILAsm]
.property string Port { public hidebysig specialname instance string
get_Port() public hidebysig specialname instance void set_Port(string
value) }
```

```
[C#]
public string Port { get; set; }
```

Summary

Gets or sets the port specified by the current instance.

Property Value

A `System.String` containing a port number, or "All" or -1 to indicate all ports.

Description

This property is write-once. Once this property has been set to a non-null value, attempts to set this property to new value cause a `System.ArgumentException`.

Exceptions

Exception	Condition
System.ArgumentException	`System.Net.SocketPermissionAttribute.Port` is being set and is not `null`.

SocketPermissionAttribute.Transport Property

```
[ILAsm]
.property string Transport { public hidebysig specialname instance string
get_Transport() public hidebysig specialname instance void
set_Transport(string value) }

[C#]
public string Transport { get; set; }
```

Summary

Gets or sets the transport type specified by the current instance.

Property Value

A `System.String` containing the transport type associated with the current instance. Valid values are "All", "Connectionless", "ConnectionOriented", "Tcp", and "Udp".

Description

This property is write-once. Once this property has been set to a non-null value, attempts to set this property to new value cause a `System.ArgumentException`.

[*Note:* Valid values for this property correspond to `System.Net.TransportType` enumeration values.]

Exceptions

Exception	**Condition**
System.ArgumentException	`System.Net.SocketPermissionAttribute.Transport` is being set and is not `null`.