

# 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`.

1  
2     The allowable `System.Net.SocketPermissionAttribute` targets are determined by the  
3     `System.Security.Permissions.SecurityAction` passed to the constructor.  
4  
5     ]  
6

# 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
<i>action</i>	A System.Security.Permissions.SecurityAction value.

## Permissions

Permission	Description
<b>System.ArgumentException</b>	<i>action</i> 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.

]

### Exceptions

Exception	Condition
<b>System.ArgumentException</b>	One or more of the current instance's <code>System.Net.SocketPermissionAttribute.Access</code> , <code>System.Net.SocketPermissionAttribute.Host</code> , <code>System.Net.SocketPermissionAttribute.Transport</code> or <code>System.Net.SocketPermissionAttribute.Port</code> properties

	is null.
--	----------

1

2

3

# 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
<b>System.ArgumentException</b>	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
<b>System.ArgumentException</b>	System.Net.SocketPermissionAttribute.Transport is being set and is not null.