EPiSERVER 4

Security in EPiServer 4

Abstract

ASP.NET includes a number of functions for managing and improving security in Web applications. This white paper describes the different logon mechanisms available in EPiServer and .NET.

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Introduction

The purpose of this white paper is to describe the different logon mechanisms available in EPiServer and .NET.

ASP.NET includes a large number of functions for managing and improving security in Web applications. Using the mechanisms in .NET, it is possible to authenticate users against a wide range of data sources such as XML files, domain servers, databases and customer-specific systems.

The EPiSEC functionality, that is the authentication of users stored in a database table, is fully covered by .NET. For this reason, EPiSEC has been replaced by integrated functions in .NET Framework. However, the users are stored in the same table structure as in EPiServer 3 for reasons of compatibility with previous systems.

Logon Methods

.NET and EPiServer offer many different ways of asking users for their identity and authorising the logon with a password. .NET also gives the option of logging on via Microsoft .NET Passport. This is not currently supported in EPiServer, but you can find out more by visiting http://www.microsoft.com/netservices/passport/.

Form Logons

EPiServer has a Web-based logon form for users to complete. The information is validated against one of the user databases that are compatible with EPiServer.

Basic Authentication

If the client's Web browser returns the message "HTTP status 401 / Access denied", a standard logon box from the client's operating system will be displayed. Internet Explorer can display two different types of logon box depending on whether the user is logging on to a Windows domain (see Windows Integrated Logon).

Windows Integrated Logon

This logon method is also initiated by an "Access denied" message. If Internet Explorer is being used, the logon may take place automatically or the user may have to enter a user name, password and domain.

Whether or not the user logs on automatically depends on the Web server and Web browser settings. The important thing to note is that this type of logon is **only** supported by Internet Explorer.

Authentication Methods

There are many different ways of checking a user's identity in Windows and .NET. It is also possible to develop new methods for doing this.

Windows Account

The user is checked against Windows' own account databases:

- Local account
- Domain account
- Active Directory

This method is used primarily in the development of intranets, because the user data must be stored in Windows. However, this involves licence costs and an extranet. If there is a large amount of users, this can be costly and difficult for network administrators to manage.

Extranet Account

In the case of a large extranet, it is a good idea to store all user data in tables in SQL Server. Storing extranet users in this way has a number of advantages; no licence costs are incurred and extranet users are kept separate from other users on the Windows network.

LDAP Database

The look-up takes place on a defined LDAP server, which can be Active Directory or NDS/Netware 6. The aim is to make this support more general, so that you can connect and authenticate users against any LDAP database.

Other Sources

EPiServer includes functions that allow integration with any user authentication source. This is an excellent solution for intranets, as there is already an existing data source for user authentication. If you want to support other Internet-based protocols, you can develop your own http modules and integrate support for these modules in your solution.

Recommendations

Windows Integrated Security

This authentication method only functions with Windows accounts that have Internet Explorer as the Web browser. It is often a useful solution for intranets, where a Windows account database is already available.

Advantages: Automatic logon, password not transferred in plain text.
Disadvantages: A Windows account and Internet Explorer are needed. Often does not function across the Internet.

Basic Authentication with Windows Accounts

Advantages: Supported by almost all Web browsers.
Disadvantages: The password is transferred in plain text. To improve security, SSL, or something similar, is needed. Automatic logon is not possible.

Basic Authentication with Extranet Accounts

EPiServer 4 can be configured in such a way that basic authentication is controlled entirely by EPiServer and ASP.NET. This also requires Internet Information Server to be configured.

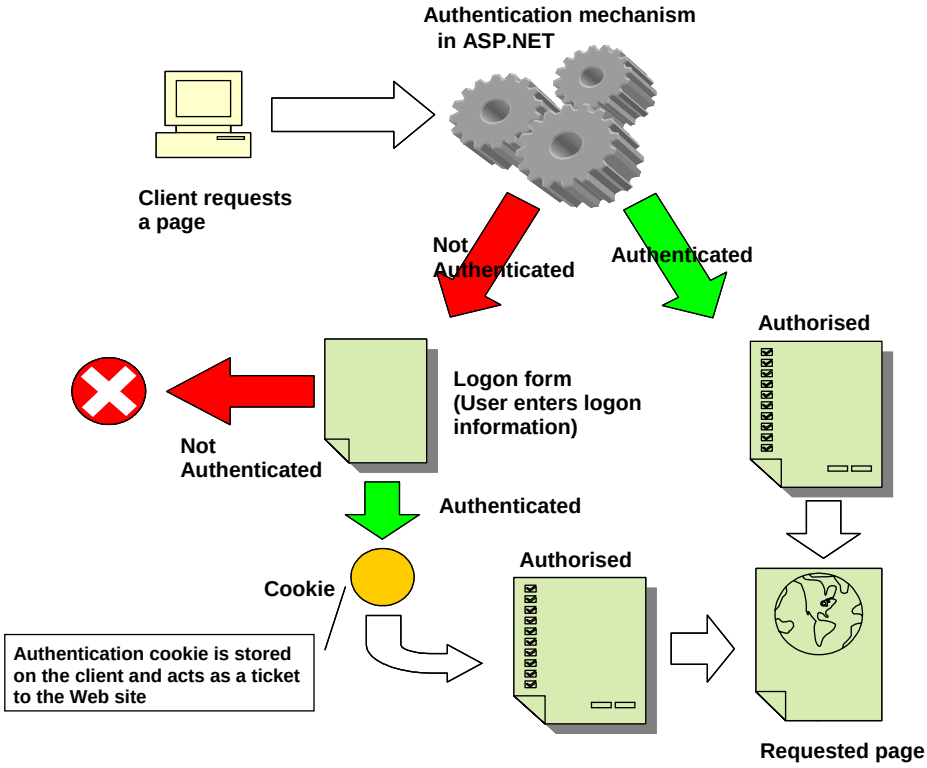
Advantages: Supported by almost all Web browsers. A Windows account is not needed.
Disadvantages: Security breaches can occur if the configuration is incorrect.

Form Logon with Extranet Accounts

Advantages: The logon page can be designed to fit in neatly with the other parts of the Web site. Support for logging off and inactivity timeout. Supported by almost all Web browsers and operating systems. A Windows account is not needed. Can be configured for automatic logon.

Disadvantages: The password is transferred in plain text. To improve security, SSL, or something similar is needed.

Form Logons in EPiServer 4



If Windows 2000 is used as the Web server, you must allow the ASPNET user account to act as part of the operating system. If you do not do this, it will only be possible to validate against extranet accounts and not Windows accounts. If you assign this right to ASPNET, this will lower the security level on the server, because the purpose of ASPNET is that it is an account with as few rights as possible.

To do this, follow the instructions below:

1. Start *Local Security Policy* from *Administrative Tools*.

2. Open *Local Security Settings* > *Local Policies* > *User Rights Assignments*.
3. Open *Act as part of the operating system*.
4. Add the ASPNET user account to this policy.
5. Restart the Web Service by running the command `iisreset` from the command prompt.