LearningServer Router

The LearningServer Router was in developed in response to the needs of our customers who require the ability to directly utilize the underlying individual components within their own environment without significant coding or development with a high degree of security and flexibility.

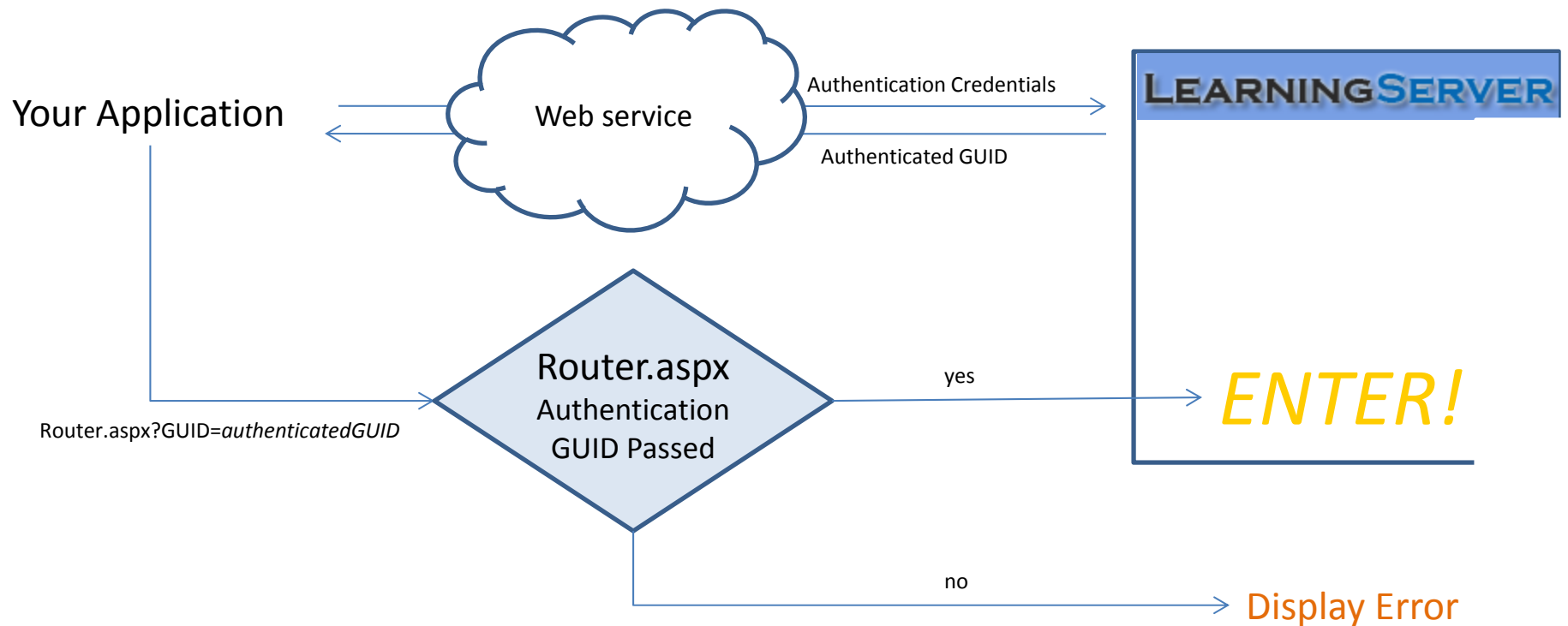## The main features/Benefits of the Router include:

- Greater security with the use of web services and GUID parameters
- More options as to where the user will be redirected once authenticated.
- Greater control of the web service password
- Multiple layers of security before authentication

System Requirements:
- LearningServer 2.8.0 or greater
- Enhanced Management Collection for LearningServer

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How the Router works

Your Application

Web service

Authentication Credentials

LEARNINGSERVER

Authenticated GUID

Router.aspx?GUID=*authenticatedGUID*

Router.aspx
Authentication
GUID Passed

yes

ENTER!

no

Display Error

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LearningServer Router is made up of 3 components
1. Web Service (<url>/webservices/AuthenticationAPI.asmx)
2. Router.aspx (<LearningServer directory>/Router.aspx)
3. RouterErrors.aspx (< LearningServer directory >/library/RouterErrors.aspx)

LearningServer Router is also dependent on the following being set via the U.I.
1. Referrer URL (System > Maintenance > Referrer URL)
2. Web Service Password (System > Web Services > Setup)
3. GUID Time Out (System > Web Services < Setup)

The **GUID Time Out** allows you to set the amount of time (seconds) in which the GUID will remain active. If an expired GUID is passed to Router.aspx you will redirected to RouterErrors.aspx.

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Web Service

The Web Service provides four Methods ...

AuthenticationAPI

The following operations are supported. For a formal definition, please review the **Service Description**.

- **AuthenticateForGUID1**
  Returns an authenticated GUID that can be used to access LearningServer.

- **AuthenticateForGUID2**
  Returns an authenticated GUID that can be used to access LearningServer (Use with Active Directory).

- **AuthenticateForGUID3**
  Returns an authenticated GUID that can be used to access LearningServer. (Requires Course Code and redirect input)

- **AuthenticateForGUID4**
  Returns an authenticated GUID that can be used to access LearningServer (Use with Active Directory). (Requires Course Code and redirect input)

- **AuthenticateForGUID5**
  Returns an authenticated GUID that can be used to access LearningServer.

- **AuthenticateForGUID6**
  Returns an authenticated GUID that can be used to access LearningServer.

> Methods 5 and 6 are reserved for future use

Parameters:

- WSPassword – This maps to the value set in LearningServer > System > Web Services > SetUp
- OrgID – Standard parameter for all Web Methods
- UserName – The username of the User you are trying to Authenticate. (Windows account name when using Active Directory)
- Password – The password of the User you are trying to Authenticate. (Not used in Active Directory Methods)
- refererURL – This maps to a value set in LearningServer > System > Maintenance > RefererURL
- redirectID – Enter 1. In the future, there will be more options that will redirect to different parts of LearningServer.
- CourseCode – Used when you want to be redirected directly into a Course

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Router.aspx

Router.aspx is the page you will use to enter LearningServer instead of the standard Default.aspx.
It accepts one query string parameter: GUID (e.g. <url>/Router.aspx?GUID=**5ba73f7a-e752-4c21-a9e0-5d1d143aa62b**)

(Use the GUID value that was returned by the Web Service)

Once the Router.aspx has completed it's evaluation of the GUID,
A redirect occurs to either the Welcome Page or to a Course depending on which
Web Method was used.

A Note about ReferrerURL…

The Web Service requires an input parameter for referrerURL.
This is an additional security measure that is used to validate that Router.aspx is being called from a valid website. A typical entry for referrerURL in Settings > Maintenance > ReferrerUrl is http://mywebsite.com.

(Http or Https is necessary when entering a value)

While in referrURL, you can enter as many values as you wish, but you only need to use one as an input to the referrerURL parameter when calling the web service.

If you do not need Router.aspx to evaluate from where it is being called (referrer), you can disable the check by manually changing the Text value in Router.aspx to Text="0". (Open Router.aspx in Notepad and modify the following line of code.)

```
<asp:Label ID="lblHTTPREF" runat="server" Visible="False" Text="0"></asp:Label>
```

However, you still need to set a value in referrerURL, but it does not need to be a full IP address. It is now just an additional password (e.g. hello, dog etc.)

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RouterErrors.aspx

Located at <LearningServer Directory>\library\, this page will display the various error messages that Router.aspx may encounter. You can manually modify this page by adding your own HTML mark-up.

Your code should only be contained within the following comment tags:
        <!-- HTML Content begin →
        <!-- HTML Content end -->

You can also change the wording of the error messages or assign a new CssClass other than "pagetextred"

<u>Errors that may be displayed:</u>
• "Invalid input parameters"
• "Page is not being accessed from valid registered location"
• "Authentication GUID has expired"
• "Invalid Course Status"
• "Learner is Waitlisted"
• "Learner has been dropped"
• "Learner has Tested Out"
• "Event has expired"

> ### WARNING DO NOT DELETE
>
> <asp:Label ID="lblDisplayError" runat="server"></asp:Label>

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Referrer URL, Web Service Password and GUID Time Out
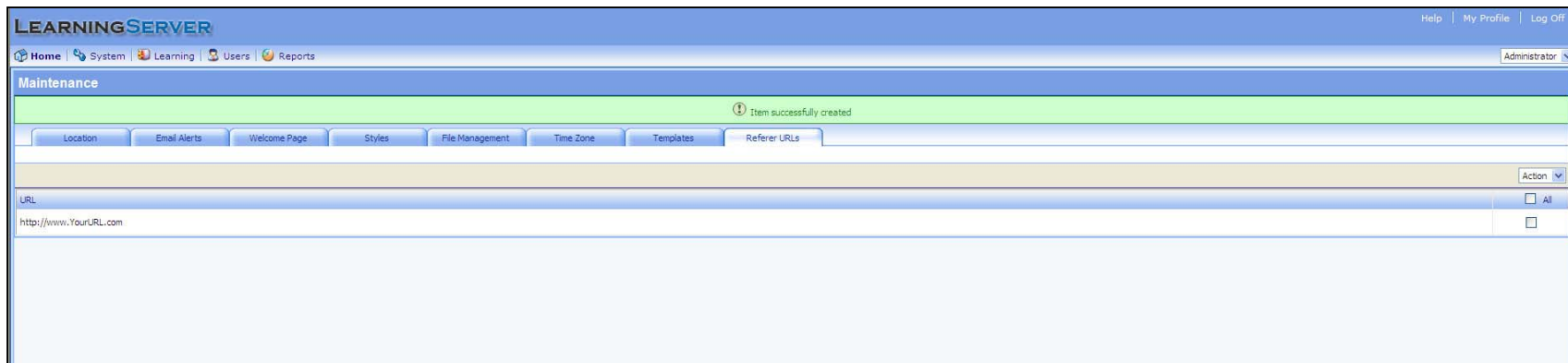
The Web Service receives a WSPassword and referrerURL input parameter that get set in the U.I.

If a GUID Time Out is not set or if it is set to 0, the Authentication GUID will not expire. (Default unlimited)

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Appendix: Web Server error codes

> If the information submitted cannot be authenticated, the Web Service will return one of the following error codes instead of an Authenticated GUID.

-1 Cannot locate user

-2 User is no longer active

-3 Invalid Active Directory input Parameter

-4 URL is not a valid registered URL

-5 Course does not belong to this Organization

-6 User is not a Learner (Checked if CourseCode is submitted)

-7 Event has Expired (Checked if CourseCode is submitted and Course is an Event)

-8 User is not enrolled to this Course

-9 Student has tested out

-10 Student has been Dropped

-11 Student is Waitlisted

-12 Invalid Status

-99 General Database Error