1. eRETR Web Services: Overview for Developers

Services are secured. Communication is via HTTPS protocol. Clients **encode WAMs Credentials** to obtain a **token** (see section 3). The **token** is included in the request header (see section 3). In the request body the Client provides data that DOR needs to process the request.

A request arrives at DOR's servers; the request header is read, the **token** is decoded to plain text, the WAMS User Object is fetched from the Department of Enterprise Technology (DET) and the user's WIUID (Wisconsin Universal ID) is obtained. An official eRETR user is fetched from DOR's eRETR User Table using the WIUID. Finally, the eRETR user's roles are fetched.

A Client must have one or more of these roles: TREASURER, ROD (Register of Deeds), LISTER (Real Property Lister) and TWSU (Trusted Web Service User) to use a DOR eRETR service. The roles, which are ultimately obtained from the **token** in the request header, determine if the request is processed or rejected.

All third party software partners must obtain a WAMS account and apply to be an eRETR user with the TWSU role (see section 2).

All services are two-way. Clients provide information to us in the request (header and body) and DOR sends information to Clients in the response body (or an error response).

DOR Web Services

Service	Input (Request)	DOR Server Action	Output (Response)	Roles Needed
Post an unrecorded Electronic Real Estate Transfer Return (eRETR)	The unrecorded eRETR (XML)	Post unrecorded eRETR	The Receipt number and the posting date and time – also echoes back the return	TWSU
Get eRETR receipt URL by receipt number[1]	Receipt number	Formulate URL	URL to receipt	TWSU, ROD, or LISTER
Post recording information	Receipt number and Recording information from the ROD	Add recording information to an unrecorded return just	The XML of the fully recorded return	ROD
Post Official Parcel Numbers	County code and document number and a list of official parcel numbers from the Real Property Lister	Amends the parcel numbers given by the Filer with ones from the Lister	The XML of the fully recorded eRETR	LISTER
Get unrecorded eRETR by receipt number	Receipt number	Fetches the unrecorded eRETR	The XML of the un-recorded eRETR	ROD
Get Recorded eRETR by Receipt number	Receipt number	Fetches the recorded eRETR	The XML of the fully recorded eRETR	ROD, or LISTER
Get eRETR by County code and Doc number	County code and document number	Fetches the recorded eRETR	The XML of the fully recorded eRETR	ROD, or LISTER
Get user by WAMS ID and Password	Encoded WAMS credentials	Fetches the eRETR user	The XML of the eRETR user	TWSU
Hello World	HW request	Send a Hello World response	Hello World	

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[1] The URL returned from this request can be used to view the receipt. It can also be used to view the full electronic real estate transfer return. Replace all occurrences of *receipt* with *detail* in the URL.

2. **eRETR Web Services: Getting ready to use and test the services**

    From section 1: All third party software partners must obtain a WAMS account and apply to be an eRETR user with the TWSU role.

    For testing purposes only, you can obtain a WAMS account here: https://uaon.wisconsin.gov/WAMS/home. It is suggested that you use a company-generic email. The name information, however, should be a specific contact in your company.

    After obtaining your WAMS account, apply to be a trusted web service user here: https://test.revenue.wi.gov/RETRWebApp/application?mxyztplk=klptzyxm. You will become a trusted web service user (TWSU) but only in our test environment.

    TWSUs may only use these services by default: *Get user by WAMS ID and Password*, *Get eRETR receipt URL by receipt number* and *Post an unrecorded Electronic Real Estate Transfer Return (eRETR)* (see the *Roles Needed* column in the chart in section 1).

    For testing purposes only, DOR will grant you other roles (see section 1 for roles) in the test environment only so that you can proceed with your development and use some of the other web services. Make requests to eretr@revenue.wi.gov for additional roles that will be good only during testing. Only request the roles you need for testing your system.

    DOR offers sample client software written in Java that will allow you to explore the web services. To request a copy of the sample Java client or more information please contact DOR by email at: eretr@revenue.wi.gov.

3. **eRETR Web Services: Encoding credentials**

    From section 1: Clients *encode WAMs Credentials* to obtain a *token*. The *token* is included in the request header.

    Request the encoding algorithm by emailing eretr@revenue.wi.gov. Essentially, you form a string consisting of the WAMs id and the WAMs password separated by a comma: e.g. j@ckSpr@t,e@tn0f@t.

    The plain text string j@ckSpr@t,e@tn0f@t is input to the encoding algorithm and a token (the encoded credentials) is returned: pCkmYtxH{5kC|p6jF|. The token (pCkmYtxH{5kC|p6jF|) is what you include in the header and it is decoded on DOR's server to plain text j@ckSpr@t,e@tn0f@t.

4. **eRETR Web Services: Technical information needed to start**

    Please find the WSDL here: https://test.revenue.wi.gov/RETRWebService/services/eRETRPort?wsdl Request the Java Sample client by emailing: eretr@revenue.wi.gov. Even if you don't use Java, the sample client will be valuable to you because it contains sample requests and sample responses and a complete list of response error codes.

5. **eRETR Web Services: Production considerations**

    When you are ready to go to production, all third party software partners must obtain a WAMS account and become an eRETR user with the Trusted Web Service User (TWSU) role. **For production purposes**, obtain another WAMS account here: https://on.wisconsin.gov/WAMS/home. Note the URL in the previous sentence differs from section 2. It is suggested that you use a company-generic email. The name information, however, should be a specific contact in your company.

    After obtaining your production WAMS account, apply to be a trusted web service user here: https://ww2.revenue.wi.gov/RETRWebApp/application?mxyztplk=klptzyxm. Again, the URL in the last sentence differs from section 2. You will become a trusted web service user (TWSU) *in our production* environment.

In production, TWSUs may only use these services: *Get user by WAMS ID and Password*, *Get eRETR receipt URL by receipt number* and *Post an unrecorded Electronic Real Estate Transfer Return (eRETR).* Additional roles **will not be granted** to you in production.

What if you need to use the *Post recording information* service in your production software? Only the ROD can use this service so your software should allow the ROD to enter his/her WAMs credentials. Your software should validate that they typed their credentials in correctly **via** the *Get user by WAMS ID and Password* service. If you get a successful response back from *Get user by WAMS ID and Password* then your software should encode the credentials and use the RODs token in the header.