

## Web Services Documentation for LOAN SERVICING SOFT

This document describes a machine-to-machine interface with LOAN SERVICING SOFT and how to use it. It describes what the LOAN SERVICING SOFT web service is, what is required to use it, and how to make requests and then how to process the responses. This document should be the main guideline when implementing LOAN SERVICING SOFT web services.

For additional information or questions please feel free to contact our support group at support@loanservicingsoft.com or 1-800-993-1839 x2.

### 1.1 Detailed Technical Documentation

To obtain sample SOAP calls, and to view the WSDL service description, open your web browser to the following URL:

<http://websupport.loanservicingsoft.com/webservices/LSSSvc.asmx>

### 1.2 Common Elements

#### 1.2.1 Data Types

The following table contains information about the data types used in the web services (except where the data type format is obvious).

Data Type	Discussion
boolean	The possible values are the strings true and false.
date	The date format is yyyy-mm-dd. For example, 2004-12-26.
dateTime	The dateTime format is yyyy-mm-ddThhMMss.ffffff<tzadjustment>, where the T must be present between the date and time, and both the .ffffff (fraction of a second) and <tzadjustment> are optional. Note that the time is GMT, and the adjustment shows the hours relative to GMT. For our servers that is currently -08:00 hours, but could change if the change the timezone setting of our servers. Examples: 2004-12-27T11:04:29.4370000-05:00 2004-12-27T06:04:29.4370000 2004-12-27T11:04:29-05:00 2004-12-27T10:04:29 The first two and last two examples represent the same time.

Int	A signed integer internally represented by 32 bits
Long	A signed integer internally represented by 64 bits
money	A decimal number with 4 places to the right of the decimal point.
float	A floating point number (internally represented by 4 bytes)
double	A double precision floating point number (internally 8 bytes)

### 1.2.2 Requests

Unless otherwise noted, each request must include the LSSAuthenticationHeader in the SOAP header. The LSSAuthenticationHeader has two required elements:

Element	Data Type	Required	Discussion
Account	string	yes	
Username	string	yes	
Password	string	yes	All communications with the LSS server are encrypted via SSL. However, we recommend that the permissions of the user used here be limited since the password must be in plain text in the programs written to access web services.

### 1.2.3 Responses

Each export response contains a row count (named **RowCount**) in addition to the exported items. If the web service request allows specification of **OnlyCountRows**, then the service can be queried for the approximate number of rows that will be exported – without actually exporting the rows.

Each response to a service request contains a **ServiceResult** and an **ArrayOfLSSWebError**. The possible values of ServiceResult (all strings) are shown below.

ServiceResult	Discussion
Ok	The request succeeded.
Fail	The request failed.
PartialFail	Some, but not all, of the requested actions were successful. Check the <b>ArrayOfLSSWebError</b> element to determine the cause of the failures.

The **ArrayOfLSSWebError** contains a list of zero or more **LSSWebError** elements, each of which contains the following elements:

Name	Data Type	Discussion
<b>Severity</b>	string	<b>Informational, Warning, or Error</b>
<b>DbErrorCode</b>	int	This may be used by LSS technical support to aide in problem resolution.
<b>ErrorCode</b>	string	Identifies the source of the error. For a complete list, view the WSDL services description file on the LLS web site.
<b>State</b>	int	Gives more specific information about the reason for the error.
<b>AdditionInfo</b>	string	May contain details about the error.

## 1.3 Immediate Export Web Services

### 1.3.1 ExportUpToDateLoanInformation

#### 1.3.1.1 Request

The service request contains:

Name	Data	Required?	Default	Discussion
<b>LoanId</b>	long	yes		LLS internal identifier for the loan record.
<b>AsOfDate</b>	date	no	today	The call will return loan information as of this date. If the parameter is not set then today date is used.
<b>MaxRowsToReturn</b>	Int	no	1000	The maximum number of records to be exported. Values greater than 1000 may fail due to system-enforced transaction time limits.
<b>OnlyCountRows</b>	Boolean	no	false	If true, then only the RowCount is returned.

### 1.3.1.2 Response

For each resource in the result dataset the following data is returned:

Name	Data Type	Discussion
LoanId	long	Internal identifier
LoanNumber	string(50)	
LoanAmount	money	
InterestRate	double	As of date interest rate
PrincipalBalance	money	As of date principal balance
RegularPayment	money	
NextDueDate	date	

## 1.4 Immediate Import Web Services

### 1.4.1 ImportUpdateBorrowerInformation

#### 1.4.1.1 Request

The service request contains:

Name	Data	Required?	Default	Discussion
Borrowers	list of Borrower items	yes		See description of Borrower below

Each Borrower set must contain:

Name	Data	Required?	Default	Discussion
BorrowerId	long	yes		LLS internal identifier for the borrower record.
FirstName	string(50)	no		
MiddleName	string(50)	no		
LastName	string(50)	no		
PhoneNumber1	string(50)	no		
PhoneNumber2	string(50)	no		
PhoneNumber3	string(50)	no		

<b>Email</b>	string(50)	no		
<b>Address</b>	string(255)	no		
<b>AddressState</b>	string(2)	no		
<b>AddressZIP</b>	string(10)	no		

The **BorrowerId** must match a record already in LSS database. Then the new information replaces the old information.

#### 1.4.1.2 Response

The following data is returned:

<b>Name</b>	<b>Data Type</b>	<b>Discussion</b>
<b>UpdateSuccessful</b>	bool	