



Web Services

Memo

NAV 6.4

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1 Overview

1.1 Requirements

The POS should be able to solve all transaction server requests through web server requests. This is done by adding new web requests to the existing web request module. For this to work on the POS all the requests have to be both implemented at the web server side and the web client side. The POS setup should be able to control for each request whether it is done by transaction server or by web server and when using the web service the request URI for each request shall be configurable.

1.2 Member Management Module

The Member Management module uses only Web Services and not Transaction Service.

1.3 Use

To monitor the web service communication, you use the **Web Service Monitor** that gives an overview over the communication between the offline call center and restaurant databases. The monitor window shows the latest result of the various processes going on and from here you can run the processes directly and check whether a call center or a restaurant are online through web services.

2 Web Services introduced in LS Retail NAV 6.2

The Web Service Framework introduced in the LS Retail NAV 6.2 is a set of table to define supported request and how their request and response xml are constructed. The module consists of:

1. Setup table to define if the module is active and some command Node Names to be used in xml documents.
2. Request setup table to define supported requests and if they are active or not.
3. Request xml setup table to define both request and response xml for each request.
4. Common support functions to read requests process and create response xml.
5. Report to print out xml document layouts.

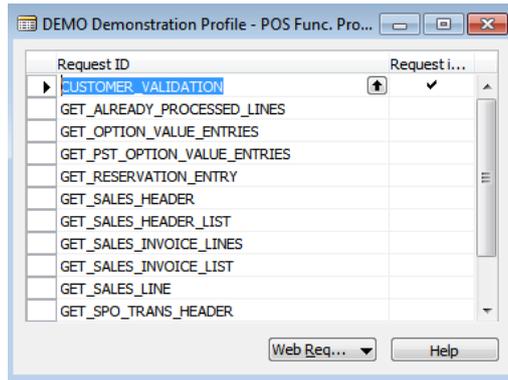
When the web service module is activated for the first time and no request exists in the request table the system will create all the default requests. This is also valid if active later and no requests found. When each request is activated and xml setup is not found for the request (both request and response) the system will create default xml setup for both request and response document.

3 Web Services in LS Retail NAV 6.3

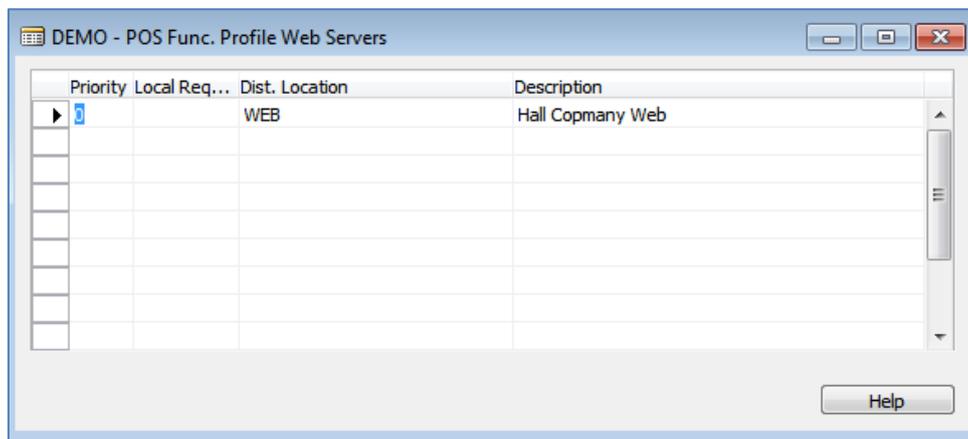
3.1 New Functionality in LS Retail NAV 6.3

The new functionality can be divided into 3 groups.

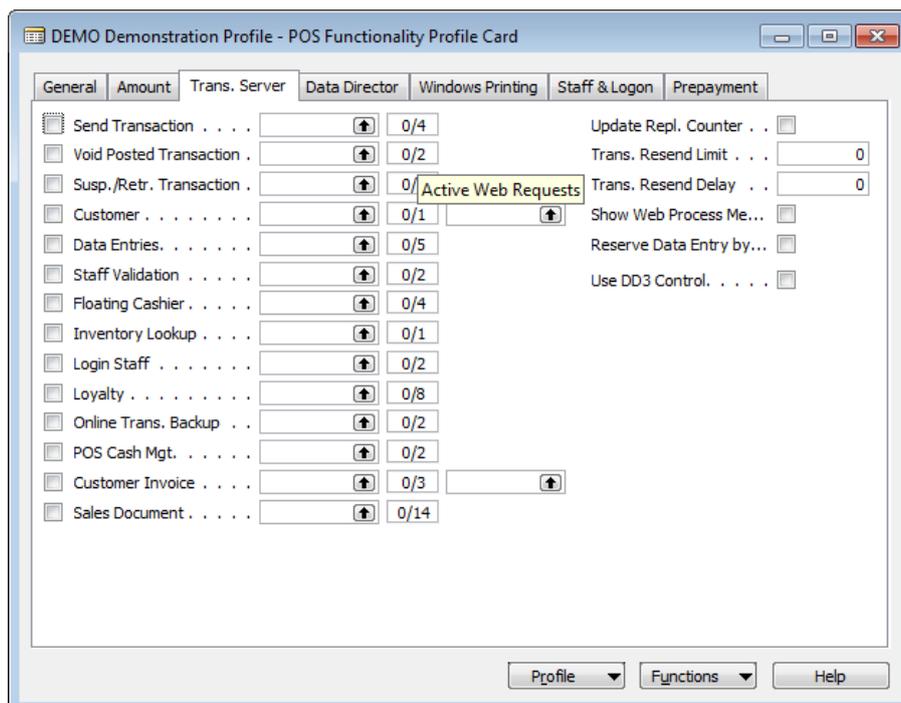
1. Implementing new requests at web service side.
2. Implementing new requests at web client side.
3. Implementing new web client functions as part of the POS Transaction Server Utility.



Form 99008949 POS Func. Profile Web Servers is a new list like form the show (chain) of web servers that the web client is allowed to use to fulfill web request in connection with a given POS functionality profile. It is found here: **LS Retail – POS, Profiles, Functionality Profiles, Profile** button, select **Web Servers**

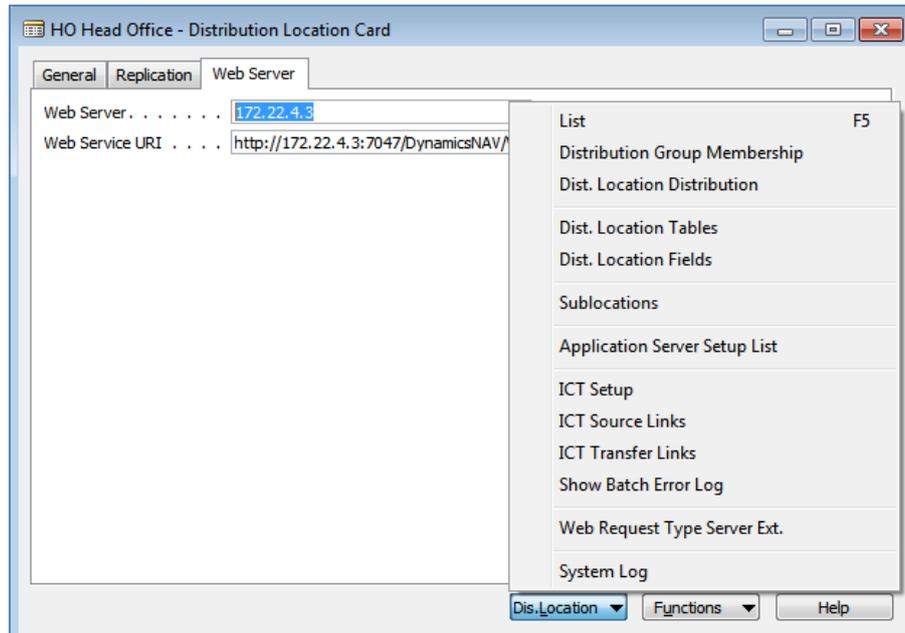


Changes have been made to the **POS Functionality Profile Card** on the Trans. Server tab at **LS Retail – POS, Profiles, Functionality Profiles, Trans. Server** tab:



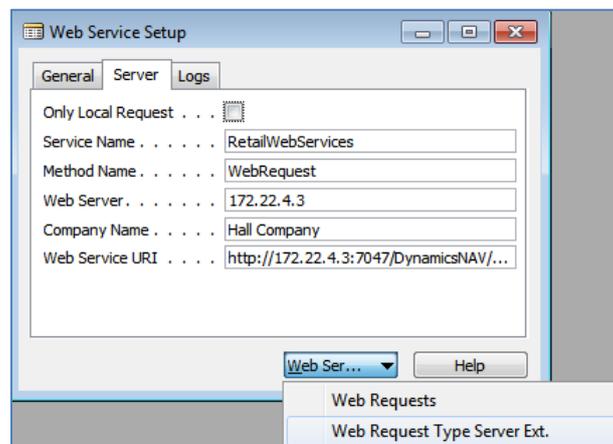
This form is changed to support new web service functionality. New column that shows how may request out of total available are active for each group. By drilling down on this filed the user gets a list of all available request for this group and is able to either activate or deactivate individual requests. Add two new commands to the Profile menu button that is command to run the profile request setup form where all profile requests are accessible and command to run the general server setup form.

Changes have been made to the Distribution Location card at **LS Retail – Scheduler, Distribution Location:**

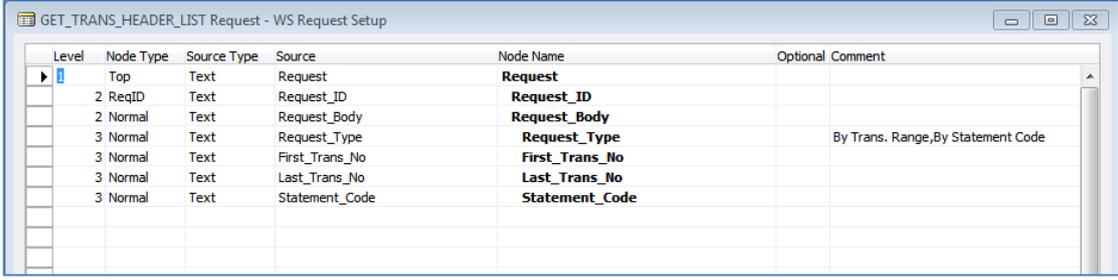


This form is changed to support new web service functionality. Add new tab and fields to define web server information for this location. Add new command Web Request Type Serve Ext. to menu button Dis.Location to run the extended request type setup.

At LS Retail – BackOffice, Setup, Web Service Setup there is a changed form to support new web server and log functionality. Add new tabs and fields to define web server and log information. Add new command Web Request Type Serve Ext. to menu button Web service to run the extended request type setup.



The Web Request Setup form has now an additional Optional Comment column:



Level	Node Type	Source Type	Source	Node Name	Optional Comment
1	Top	Text	Request	Request	
2	ReqID	Text	Request_ID	Request_ID	
2	Normal	Text	Request_Body	Request_Body	
3	Normal	Text	Request_Type	Request_Type	By Trans. Range,By Statement Code
3	Normal	Text	First_Trans_No	First_Trans_No	
3	Normal	Text	Last_Trans_No	Last_Trans_No	
3	Normal	Text	Statement_Code	Statement_Code	

3.1.1 Additions and Changes to Codeunits

Codeunit 99009514 WS Default Data is a new codeunit to insert default data. This process used to part of the setup table but has now been move to separate codeunit, mainly because of the increase of requests and the needed to make both this and the normal process of the table more focusable.

Codeunit 99009515 Web Services Connection is a new codeunit to handle all needed web connections.

Codeunit 99001570 POS Transaction: Change to support new web service requests regarding transaction suspension and z-report.

Codeunit 99008900 POS Function: Change to support new web service requests regarding transaction suspension and loyalty points handling.

Codeunit 99008908 POS Data Client Utility. Change to support new web service request GET_POS_START_STATUS when used to solve request for TS POS Cash Mgt.

Codeunit 99008909 POS Transaction Server Utility. Change to support new web service requests. This codeunit acts as a connection point to the web services client depending on if the request should be solved as web service request or as transaction server request. This codeunit cover most of the connections with few exceptions.

Codeunit 99009510 Web Services: Extended and change to support different request types and to handle exceptions in more depth. Requests are now run in a separate codeunit in a protected mode and this codeunit now catches all exceptions (errors) and created a default response xml including the error as an answer to the request.

Codeunit 99009511 Web Requests: Extended and change to support new base web requests. This includes utilizing extended support from the WS Functions codeunit.

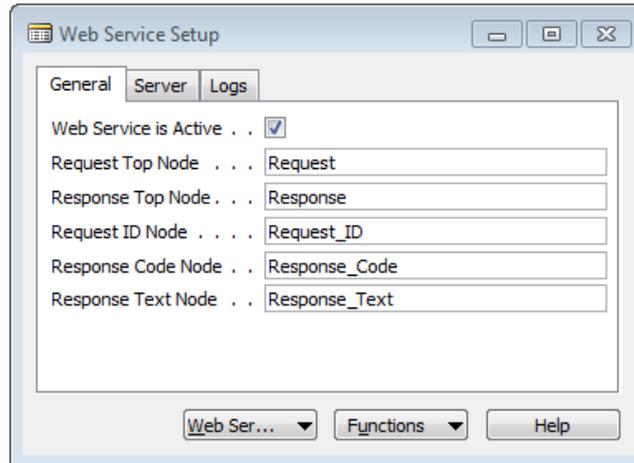
Codeunit 99009512 WS Functions: Extended and change to give better support for both web service and web services client. This includes function for repeatable actions and other support function to simplify the coding of individual request.

Codeunit 99009513 Web Requests: Extended and change to support new base web requests. This includes utilizing extended support from the WS Functions codeunit.

3.2 Web Service Setup

To set up the Web Service, for instance for the Member Management module, there are a few paths that are useful:

1. Go to **LS Retail – BackOffice, Setup, Web Service Setup**. In this form all the common nodes, top, ID and response is defined.
2. On the **General** tab make sure that the field Web Service is Active is checked.



Web Service Setup

General Server Logs

Web Service is Active . . .

Request Top Node . . . Request

Response Top Node . . . Response

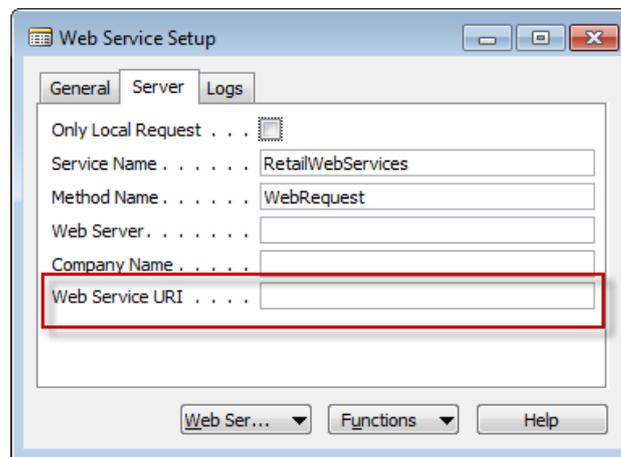
Request ID Node . . . Request_ID

Response Code Node . . . Response_Code

Response Text Node . . . Response_Text

Web Ser... Functions Help

3. On the **Server** tab the Web Server URI is entered.



Web Service Setup

General Server Logs

Only Local Request . . .

Service Name RetailWebServices

Method Name WebRequest

Web Server

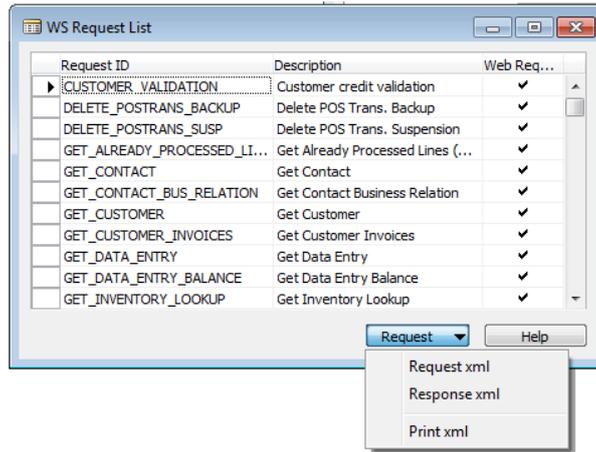
Company Name

Web Service URI

Web Ser... Functions Help

To Activate: In the Web Service Setup form you can activate or deactivate the web service module. If no request exist in the WS Request table when you activate the system will create all the default requests.

To Activate Requests: Go to **LS Retail – BackOffice, Setup, Web Service Setup**. From the **Web Service** button select **Web Requests**. The WS Request appears. In this form you can activate or deactivate web requests. If no xml request setup exists in the WS Request Setup table the system will create the default xml request and response setup for the request. On the list form there is a **Request** button where requests are set up under **Request/Response xml**.



When activating the request the system creates the default setup for each request.