This document highlights the major changes for Release 2.9.5.4 (Build 65) of Oracle Retail LUCAS.

Overview

Oracle Retail LUCAS is an integrated ARTS-based (Association of Retail Technology Standards) point of sale solution providing grocery, fashion, and hardlines functionality. LUCAS serves both the mid-size and large retailers in these segments.

This release enables the retailer to process end-user requests for data access and deletion of individual data records stored in Oracle Retail LUCAS.

LUCAS now provides API to fetch customer data or employee data given the customer identifier or the employee identifier respectively. It also provides the API to delete the employee data or the customer data stored by Oracle Retail LUCAS.

Prerequisites

The following are prerequisites.

Supported Platforms

Release 2.9.5.4 (Build 65) is supported on the following platforms:

Supported Platform	Comments
Windows 7	Service Pack 1 required.
PosReady 7	
Windows Server 2008 R2	Service Pack 1 required.
Windows Server 2012 R2	
Oracle Enterprise Linux 6.8	

Additional System Requirements

To install and run the LUCAS release, it is necessary to install a set of software as a prerequisite on the system:

Required Application	Supported Versions	Comments
Database	Microsoft SQL Server 2008 R2 SP2 Microsoft SQL Server 2012 SP1 Microsoft SQL Server 2014 SP1 PostgreSQL Database Server 9.5	Microsoft SQL Server compatibility is verified for Express Edition.
Java	Oracle Java 7 32bit/64bit Oracle Java 8 32bit/64bit	Restriction: 64bit drivers are not available for all peripheral hardware devices. Java 6 is no longer supported.

Required Application	Supported Versions	Comments
Cygwin	Version 2.2.1 minimum	Required components: ▪ OpenSSH ▪ rsync ▪ zip ▪ unzip ▪ dos2unix ▪ shutdown

Note: The Webstart functionality is not supported by this version.

Note: When using a 64bit JVM, it is required to increase the MaxPermSize in installer.properties of LUCAS.

Note: Special configuration is necessary for some of the mentioned software components. Without this configuration, the installation of LUCAS might fail. Contact Oracle support for detailed information and assistance.

Note: Lucas follows the Arts Data model and provides a place holder for storing the social security number of an entity in the PA_PRS table. This is highly sensitive information. Lucas does not provide any encryption for data stored in the database. It is the responsibility of the retailer to take the necessary steps for securing any sensitive data stored in the database.

Hardware Reference List

This is not a complete list of all supported hardware. It is to serve as a reference for setting up a full POS system with supported hardware.

Equipment	Possible Hardware
Register / PC	HP RP 580 Toshiba SurePos 500
Receipt Printer	Epson TM-T88V
Scanner	Motorola DS4208 PSC QS 6000 Plus
Cash Drawer	ADS Anker
Customer Display	Epson D-105
Touch Screen	Elo Touch

> **Note:** Specific hardware setup combinations need to be evaluated individually.

Java POS

Peripheral hardware devices are generally integrated via JavaPOS. It might be necessary to install the corresponding JavaPOS package for the selected hardware device (such as Toshiba JavaPOS 1.14, Epson JavaPOS 1.14.1, and Wincor JavaPOS 1.13.x).

> **Note:** For Wincor JavaPOS 1.13.x, there are restrictions considering OS, databases, and Java versions, which should be clarified with the vendor.

Security Prerequisites

To install and run a LUCAS release, it is necessary to properly set up a public key infrastructure as described in the LUCAS Security Guide.

As a complementary security measure, it is highly recommended to employ drive encryption and/or transparent database encryption.

> **Note:** Due to fundamental changes in the communications layer, an update from an older version to the current one is not provided and requires additional migration efforts. Contact Oracle support for detailed information and assistance.

Technical Enhancements

This release contains a set of new webservices and cleanup tasks for deleting/cleaning-up employee and customer data. It also contains enhancement to certain cleanup tasks.

All the web services are SOAP based jax-ws services. The web services are authentication protected and expect 'Auth-User-Id' and 'Auth-User-Password' as http headers with the request. The operator invoking the service should also have the proper AccessPermissions to invoke these services successfully. These AccessPermissions can be set for an individual Operator or an OperatorGroup.

The newly added webservices are:

EmployeeReader Webservice

This service is used to get details about an employee based on employee id.

Endpoint URL:

```
https://<CSMS>:8082/ws/employeereader/v1
```

The input parameter for this webservice is RequestObjectEmployeeReader object which should contain employeeId, id of the employee whose details should be read. Then as response it will return EmployeeReaderResponseAttributeCollection object, a collection of EmployeeReaderResponseAttribute.

A Sample Request:

```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
<S:Body><ns3:read xmlns:ns2="urn:EmployeeReader"
xmlns:ns3="http://v1.employee.plugins.wsp.service.logware/">
```

```
            <RequestObjectEmployeeReader>
                <employeeId>2299</employeeId>
            </RequestObjectEmployeeReader>
        </ns3:read></S:Body>
</S:Envelope>
```

Sample Response

```
<?xml version="1.0" ?>
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
    <S:Body>
        <ns3:readResponse xmlns:ns2="urn:EmployeeReader"
xmlns:ns3="http://v1.employee.plugins.wsp.service.logware/">
            <EmployeeReaderResponseAttributeCollection>
                <attribute>
                    <value xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xs="http://www.w3.org/2001/XMLSchema" xsi:type="xs:string">2299</value>
                    <valueClassName>java.lang.String</valueClassName>
                    <identifier>employee.id</identifier>
                    <propagate>0</propagate>
                </attribute>
                <attribute>
                    <value xmlns:xsi="…" xmlns:xs=".."
xsi:type="xs:string">2299</value>
                    <valueClassName>java.lang.String</valueClassName>
                    <identifier>employee.external.id</identifier>
                    <propagate>0</propagate>
                </attribute>


<attribute>
        <value xmlns:xsi=".." xmlns:xs=".." xsi:type="xs:string">2299</value>
        <valueClassName>java.lang.String</valueClassName>
        <identifier>employee.ssn</identifier>
        <propagate>0</propagate>
    </attribute>
……
<attribute>
                    <value xmlns:xsi=".." xmlns:xs=".."
xsi:type="xs:string">Rahna</value>
                    <valueClassName>java.lang.String</valueClassName>
                    <identifier>resource.address.first.name</identifier>
                    <propagate>0</propagate>
                </attribute>
                <attribute>
                    <value xmlns:xsi=".." xmlns:xs=".."
xsi:type="xs:string">Ravi</value>
                    <valueClassName>java.lang.String</valueClassName>
                    <identifier>resource.address.last.name</identifier>
                    <propagate>0</propagate>
                </attribute>
……..
                <attribute>
                    <value xmlns:xsi=".." xmlns:xs=".." xsi:type="xs:string">1988-
10-30 00:00:00.0</value>
                    <valueClassName>java.lang.String</valueClassName>
                    <identifier>resource.birth.day</identifier>
                    <propagate>0</propagate>
                </attribute>
                <attribute>
                    <value xmlns:xsi="…" xmlns:xs=".."
xsi:type="xs:string">206</value>
                    <valueClassName>java.lang.String</valueClassName>
```

```
                                <identifier>resource.address.address.line1</identifier>
                                <propagate>0</propagate>
                        </attribute>
…….
                    <attribute>
                            <value xmlns:xsi="…" xmlns:xs=".." xsi:type="xs:string">brk
street</value>
                            <valueClassName>java.lang.String</valueClassName>
                            <identifier>resource.address.address.line3</identifier>
                            <propagate>0</propagate>
                        </attribute>
                        <attribute>
                            <value xmlns:xsi=".." xmlns:xs=".."
xsi:type="xs:string">Berlin</value>
                            <valueClassName>java.lang.String</valueClassName>
                            <identifier>resource.address.city</identifier>
                            <propagate>0</propagate>
                        </attribute>
<attribute>
                            <value xmlns:xsi=".." xmlns:xs=".."
xsi:type="xs:string">DE</value>
                            <valueClassName>java.lang.String</valueClassName>
                            <identifier>resource.address.country</identifier>
                            <propagate>0</propagate>
                        </attribute>

<attribute>
                            <value xmlns:xsi="…" xmlns:xs=".."
xsi:type="xs:string">560103</value>
                            <valueClassName>java.lang.String</valueClassName>
                            <identifier>resource.address.zip</identifier>
                            <propagate>0</propagate>
                        </attribute>
                        <attribute>
                            <value xmlns:xsi=".." xmlns:xs=".."
xsi:type="xs:string">DE</value>
                            <valueClassName>java.lang.String</valueClassName>
                            <identifier>resource.address.geo</identifier>
                            <propagate>0</propagate>
                        </attribute>
                        <attribute>
                            <value xmlns:xsi=".." xmlns:xs=".."
xsi:type="xs:string">8089588505</value>
                            <valueClassName>java.lang.String</valueClassName>
                            <identifier>resource.cellphone</identifier>
                            <propagate>0</propagate>
                        </attribute>
                        <attribute>
                            <value xmlns:xsi=".." xmlns:xs=".."
xsi:type="xs:string">9496342545</value>
                            <valueClassName>java.lang.String</valueClassName>
                            <identifier>resource.fax</identifier>
                            <propagate>0</propagate>
                        </attribute>
                        <attribute>
                            <value xmlns:xsi=".." xmlns:xs=".."
xsi:type="xs:string">7406595435</value>
                            <valueClassName>java.lang.String</valueClassName>
                            <identifier>resource.telephone</identifier>
                            <propagate>0</propagate>
                        </attribute>
                </EmployeeReaderResponseAttributeCollection>
            </ns3:readResponse>
```

```
    </S:Body>
</S:Envelope>
```

EmployeeDelete Webservice

This service is used to delete an employee and related data based on employee id.

Endpoint URL:

```
https://<CSMS>:8082/ws/employeedelete/v1
```

The input parameter for this webservice is RequestObjectEmployeeDelete which will contain the employeeId, id of the employee to be deleted. The success or failure of the request processing can be found from the underlying parameter change job.

A Sample Request and Response

```
<S:Envelope xmlns:S="…">
<S:Body>
<ns3:delete xmlns:ns2="urn:EmployeeDelete"
xmlns:ns3="http://v1.employeedelete.plugins.wsp.service.logware/">
<RequestObjectEmployeeDelete><employeeId>01</employeeId>
</RequestObjectEmployeeDelete>
</ns3:delete>
</S:Body></S:Envelope>
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
  <S:Body>
        <ns3:deleteResponse xmlns:ns2="urn:EmployeeDelete"
xmlns:ns3="http://v1.employeedelete.plugins.wsp.service.logware/">
            <ResponseObjectEmployeeDelete>
                <responseMessage>Delete Request for Employee 01 is being
processed.
                 Please check Paramter Change Job for Details.
   </responseMessage>
            </ResponseObjectEmployeeDelete>
        </ns3:deleteResponse>
    </S:Body>
</S:Envelope>
```

CustomerDelete Webservice

This is used to delete a customer based on customer id.

Endpoint URL:

```
https://<CSMS>:8082/ws/customerdelete/v1
```

The input parameter for this webservice is RequestObjectCustomerDelete which will contain customerId, id of the customer to be deleted. The success or failure of the request processing can be found from the underlying parameter change job.

Sample Request and Responses

```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
<S:Body>
<ns3:delete xmlns:ns2="urn:CustomerDelete"
xmlns:ns3="http://v1.customerdelete.plugins.wsp.service.logware/">
<RequestObjectCustomerDelete>
<customerId>0001</customerId>
</RequestObjectCustomerDelete>
</ns3:delete>
</S:Body>
</S:Envelope>
```

```xml
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
    <S:Body>
        <ns3:deleteResponse xmlns:ns2="urn:CustomerDelete"
xmlns:ns3="http://v1.customerdelete.plugins.wsp.service.logware/">
            <ResponseObjectCustomerDelete>
                <responseMessage>Delete Request for Customer 0001 is being
processed.
        Please check Parameter Change Job for Details.
    </responseMessage>
            </ResponseObjectCustomerDelete>
        </ns3:deleteResponse>
    </S:Body>
</S:Envelope>
```

DeleteCustomer Cleanup Task

In this release a new cleanup task DeleteCustomer has been added which deletes customers marked for deletion. For this cleanup task to work properly, the following are the pre-requisites:

- DeleteCustomerAccounts tasks should have cleared up customer accounts of customers to be deleted.

- For pseudo-anonymization, a dummy customer in Lucas POS be created and same should be specified in cleanup.properties file as customer.dummyCustiomerID.

- The flag 'cust.deletetrans' in cleanup.properties determines whether the transactions associated with the customer should be anonymized or not. The default value is true. If false, the transactions are deleted.

- And an xml should be put in Lucas\tmp\all folder with xml name of the format (?i)(import)-([%]{4}|[0-9]{4})-([%]{4}|[0-9]{4})-([0-9]{14})-([0-9]{1,})(\\.xml). It should contain the customerId to be deleted. Example format of an xml:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<DATA VERSION="1.0">
<TABLES>
<CUSTOMER>
<CID V="<customer_id_to_be_deleted>"/>
<ACT V="D"/>
</CUSTOMER>
<CCHACCOUNT>
<AID V="<customer_account_id_associated with_the_customer_to_be_deleted>"/>
<ACT V="U"/>
<STA V="KL" />
</CCHACCOUNT>
</TABLES>
</DATA>
```

DeleteEmployeeOperator Cleanup Task

This release contains an enhancement for the cleanup task DeleteEmployeeOperator. A new flag, 'employee.checkforeigndependencies' has been added to cleanup.properties which will determine whether foreign key dependency should be considered or not. As a prerequisite, the DeleteTransactions and DeleteSessions cleanup tasks should be performed to delete respective transactions and sessions of the employee to be deleted.

Notice of Consent

While capturing or editing customer information, POS now has the capability to prompt the operator for consent from the customer. This feature can be tuned off by default. In

order to turn on the flag retailer has to change the flag 'customer.noticeofconsent' in the xpos.properties.

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Value-Added Reseller (VAR) Language

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