

Release Notes

PROIV Version 9.61

March 2021



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Document Control Information

Document Information

	INFORMATION
Document Id	V9.61_RN
Document Owner	Zellis Holdings Ltd.
Issue Date	March 2021
Last Saved Date	30 March 2021
File Name	PROIVv9.61 _ReleaseNotes

Document History

VERSION	ISSUE DATE	CHANGES
9.2R0	October 2019	SQL Server Linux, Lite Client, Issues fixed since version 9.1
9.2R0-SR1	November 2019	Service Release containing bug fixes to 9.2R0
9.2R0-SR2	December 2019	Service Release containing bug fixes to 9.2R0
9.2R0-SR2	17 Dec 2019	Adding missing fix number.
9.2R0-SR3	01 Feb 2020	Added fixes for Service Release 3
9.2R0-SR3	January 2020	Added 2 resolved issues.
9.2R0-SR5	February 2020	Added 1 issue to fix list
9.2R0-SR6	March 2020	Added 1 issue to fix list
9.3R0	02 March 2020	Added fixes and functional changes for release 9.3R0
9.3R0-SR1	31 March 2020	Added fix list and Windows section.
9.3R0-SR2	06 April 2020	Add fix
9.4	29 April 2020	Added information about new version numbers and fixes for this release
9.41	29 May 2020	Added fix list and note on new Windows Client PIV option
9.42	17 June 2020	Added fix list and documented issue with graphics files obtained from the internet.
9.43	31 July 2020	Added fix list for service release and known issue in Send/Receive demo.
9.50	21 August 2020	Added fix list for 9.50 Maintenance Release.
9.51	25 September 2020	Add fix list for 9.51 Service Release.
9.52	9 November 2020	Added fix list for 9.52 service release and end of life notice for MySQL support
9.53	11 December 2020	Added fix list for 9.53
9.54	January 2021	Added fix list for 9.54
9.60	February 2021	Changes applied for version 9.60
9.61	March 2021	Changes applied for version 9.61

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1 Introduction

1.1 Document Structure

- Section 2 – Supported Platforms and Databases
- Section 3 – Getting Started with Version 9.0
- Section 4 – Component Specific Information
- Section 5 – Platform and Database Specific Information
- Section 6 – Issues

1.2 Upgrading Your Application

Upgrading to 9.61 is the same as upgrading to 9.60

1.2.1 Upgrading from Version 8 to Version 9.60

PROIV version 9 is not gen compatible with any previous versions of PROIV. A mandatory Regen of all code is required when moving to PROIV version 9.60. If you are upgrading from v8 to v9, you must take a backup of your boots folder; export your application source code and import into v9.60 and then perform a regen of the application. Additionally, all existing set up options will need to be reconfigured using the new PROIV Dashboard.

1.2.2 Upgrading from Version 9.0 to Minor Version 9.60

PROIV version 9.60 is gen compatible with version 9.0; there is no mandatory regen requirement. When performing an upgrade using the binary installer it will update the executables and the contents of the bootstrap by isin'ing the version 9.60 developer.out (or administrator.out). An alternative approach is to is to export your code from version 9.0 and import into version 9.60 performing a subsequent Developer bulk build of the imported functions. The default installation folder under "Program Files" is now "Zellis", if you are upgrading you should specify the install location of your existing installation otherwise a separate instance, with alternate port numbers, will be created.

The upgrade will also upgrade the dashboard. Any deployed Client Connector, Application Connector or Analytics web applications will have their contents upgraded and redeployed to the state they were in when the upgrade was run. If any new configuration options are added to the templated web applications then they will be added to the upgraded web applications with default values.

1.2.3 Upgrading from Minor Version 9.1, 9.2, 9.3, 9.4 or 9.50 to Minor Version 9.60

Upgrading from version 9.1, 9.2 or 9.3, 9.4 or 9.50 is as per upgrading from version 9.0 to 9.60.

An issue is present if upgrading to 9.60 (or later) from 9.1, in order to prevent it you will need to remove the file "lcgroup.pro" from the PROPATH folder prior to upgrading.

The RWS Max Request size now has a maximum size of 2000 (Megabytes). Any installations which currently have a value greater than 2000 in this field, in the dashboard, will be changed to 2000 during the upgrade process. See resolved issues for 9.52 in section 6 of this document.

1.3 End of Life Notices

The following are withdrawn from PROIV Version 9.

Components:

- PROIV Control Panel (Replaced with the PROIV Dashboard)
- PROIV Assure
- PROIV ActiveWeb

Platforms:

- HP-UX
- Reality DB
- MySQL
- Support for Windows 7 ceased on the 14th January 2020.
- Support for the Firefox browser (all versions) ceased on 31st August 2020
- Internet Explorer (all versions) end of life February 28th 2021
- Windows 2012R2 and Windows 8.1 are end of life on February 28th 2021
- PROIV on RedHat Enterprise Linux Version 6 is not supported beyond 30 November 2020.
- PostgreSQL 9.5 was end of life on February 11th 2021

1.4 Forthcoming End of Life Notices

None

2 System Requirements and Supported Platforms

This section lists the currently supported operating environments for PROIV and supersedes all other documents

The following table details about the compatibility of system requirements, platforms, databases and browsers for PROIV v9 components. For installation process, refer to PROIV v9 Installation guide.

PROIV Version 9.61 Server Supported Platforms							
Platform				Database Interface			
				Oracle	SQL Server	PostgreSQL	C-ISAM
OS Name	Arch	Min OS	Max OS	18c 19c	2016 2017 2018 2019 Azure SQL	9.5-9.6 10, 11, 12	7.26
Windows Server	64-bit	2012R2	2019	✓ Note 3	✓ Note 2	✓	
Windows Workstation	64-bit	10	10	✓ Note 3	✓ Note 2	✓	
Linux	64-bit x64	RedHat7	RedHat8	✓ Note 3	✓ Note 1,2	✓	✓
AIX	Power5+	AIX7.1 TL5 SP2	AIX7.1 TL5 SP5	✓ Note 3			✓
Solaris	SPARC 64-bit	Solaris 10	Solaris 11	✓ Note 3			✓

Notes

1. PROIV with SQL Server on Linux has very specific software requirements, it requires a minimum of unixODBC 2.3.7 and the Microsoft SQL Server Linux version 17 driver commonly known as msodbcsql17.
2. Support is for SQL Server 2017 running on Linux and SQL Server 2016, 2018, 2019 running on Windows
3. Support for Oracle databases and Operating system combinations is in line with Oracle's stated certifications as of date of this document.

PROIV Version 9.61 Supported Client / Browser Platforms			
Platform		Browser	
OS Name	MFC Client	Microsoft Chromium Edge	Google Chrome
		Note 1	Note 2
Windows 8.1 Update	✓		✓
Windows 10	✓	✓	✓
Windows 2012R2	✓		✓
Windows 2016,2019	✓	✓	✓

Notes

1. Microsoft Edge Legacy not supported
2. Google Chrome is tested on the latest production release only

2.1 MFC Client / Forms Designer Platforms

The MFC Client and Forms Designer are 32-bit applications which are compatible with the Windows 8.1 and 10 operating systems. Whilst the installation may be successful on other versions of Microsoft Windows, they are not supported platforms and are not tested; Zellis will not accept any fault reports or support issues on these platforms.

Version 9.4 introduced a change to the way the MFC Client responded to the return key when focus was on a dynamic icon. If you wish to use the previous behaviour a new option has been added to the General Settings for the application in v9.41 called "Hotspots action on CR" which will need to be checked to get the previous behaviour.

3 Getting Started with Version 9

3.1 New Features 9.60

3.1.1 New method on Excel SSO

The ExcelSSO writeExcelCell method currently creates a cell with Number Format General. General format means that if the input is numbers e.g. 123456789012345 it will be displayed as numeric 1.23457E+14. If no align parameter is passed to the method it defaults to Centre alignment; this overrides the Microsoft Excel default of Right align for the number, or Left align if alpha input.

In order to allow numbers to be displayed as required a new method has been added to the PROIV Excel SSO:

```
writeExcelCellAsText()
```

This method gives greater control over the format of numbers within a given cell. See the PROIV documentation for further details.

3.1.2 Windows Service Installation

From version 9.60 it is possible to install the PROIV services on Windows as the Local Service account there by reducing the access rights given to the service. If you wish to do this then select "Local Service" during the installation and the services will be installed with the local account known as NT Authority/LocalService.

The files in the PROIV installation will have their permissions updated to allow this account to be able to read and write to them. It is important to note that if your application uses other interfaces and directories then it is your responsibility to ensure that those external interfaces give the Local Service account sufficient permission to continue to operate with them. See the install guide for further details.

3.1.3 Install as non-root user on Unix/Linux

Version 9.60 allows installation as a non-root user on Linux and Unix platforms. If you choose to install as the non-root user then the first screen you will be presented with is a credentials acceptance dialog; this is to remind you that you are not running as root and that additional steps are required to be run as root to complete the installation process.

The rest of the installation is as if you were a root user. Once the files are loaded and the configuration settings applied you will be presented with an additional information panel to indicate additional steps are required to complete the installation.

To complete the installation, you need to run the script service.sh, this can be found in the bin directory underneath the root of the installation. To install the services run the script as

root and the services will be installed for your chosen operating system; for Linux this is systemd for AIX and Solaris it will be via init.d.

Notes

1. If you install on Linux which does not support systemd then the services will not be installed.
2. When not installed as root, the proiv installation files are owned by the user running the installation process. If you change permissions on files and directories then you need to ensure that the PROIV components which access them are able to do so otherwise the installation may generate errors or warnings.
3. If installing on AIX you will need to specify the path to the installed Java Virtual Machine (JVM) on the command line. Add the following parameters to the install command line:

LAX_VM <path to JVM>

See the 9.60 Install Guide for detailed information.

3.1.4 Support for external configuration files for web applications

It is now possible to override the application and client connector war files, to reference an external file. This is useful when running more than one environment with the same settings.

Stop the appropriate services, before making these changes.

Add an override descriptor to the appropriate web application xml file.

For example : ApplicationServices/webapps/base-default.xml

```
<Configure class="org.eclipse.jetty.webapp.WebAppContext">

<Set name="contextPath">/base-default</Set>

<Set name="war">C:\Program Files\zellis\PROIV Version 9\ApplicationServices\wars\base-
default.war</Set>

<Set name="overrideDescriptor">C:\anydir\override-web.xml</Set>

</Configure>
```

Add an override-web.xml file in location referenced in the web application xml file. The override-web.xml will reference the path to the new config location.

Example of an override-web.xml file

```
<?xml version="1.0" encoding="UTF-8"?>

<web-app xmlns="http://xmlns.jcp.org/xml/ns/javaee" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee http://xmlns.jcp.org/xml/ns/javaee/web-app_3_1.xsd"
version="3.1" metadata-complete="true">

    <context-param>

        <param-name>configPath</param-name>

        <param-value>C:\anydir\external-config.json</param-value>

    </context-param>

</web-app>
```

Add the new external-config.json file which is referenced in the override-web.xml.

The appropriate webservices will need to be started.

3.2 New Features 9.50

There were no new functional updates to PROIV as part of 9.50. Version 9.50 included all fixes previously released up to and including version 9.43

3.3 New Features 9.4

3.3.1 PROIV Version numbers

Prior to PROIV version 9.4, version numbers consisted of four numbers, namely *major.minor.release.build* (e.g 9.3.1.27). For version 9.4 and beyond, this will change to three numbers of the form *major.release¹.build²* (e.g. 9.4.11).

1. The new “release” number will consist of 1 or 2 digits. The first digit will indicate the old “minor” version number and the second digit, if present, will indicate the service release number. Therefore, a minor release of 9.4 may be followed by service releases of 9.41, 9.42, 9.43 etc until 9.50 is released. Where the release number is divisible by 10 that indicates a maintenance build which rolls up all previous service releases.
2. The build number indicates the order in which given versions were built. 9.41.1 is therefore guaranteed to have been built before 9.41.2 etc.

From 9.4 onwards only PROIV components that have changed will be re-built so the version numbers of components such as Developer, Virtual Machine, Windows Client, Forms Designer, Documentation and web applications may not be the same.

There are no new functional updates to PROIV as part of 9.4.

3.4 New Features 9.3

3.4.1 Config Substitution

Version 9.3 of PROIV Introduces the concept of parameter substitution in the Virtual Machine section of the PROIV Dashboard. This allows administrators to enclose Environment variables or the OGN* form of other Virtual Machine dashboard items within config settings. To use a substitution within another setting enclose the Environment variable name or the OGN* string within curly braces preceded with the '\$' character.

In the following settings the OGN* form of the Temp Directory is used to define the Print Path and the Windows Environment variable HOMEPATH is used to set the PROIV Home directory.

Print Path	<input type="text" value="\${proiv.virtualMachine.vm.public.tempDir}/PrintPath"/>
Home Directory*	<input type="text" value="\${HOMEPATH}"/>
Run Type	<input type="text" value="DEV"/>
Enable GUI	<input checked="" type="checkbox"/>
Temp Directory	<input type="text" value="c:\Temp"/>

- Print Path will resolve to c:\Temp\PrintPath
- Home Directory will be resolved to the Windows HOMEPATH environment variable

3.4.1.1 Limitations of Config Substitution

1. The parameters used either as source or destination must be textual (string types). Numbers and Booleans are not allowed
2. Nesting of parameters is not supported. If a substitution parameter contains another it will not be resolved in the derived parameter.
3. If a substitute string cannot be resolved then an empty string is used instead

* “Object Graph Notation” as used in the Virtual Machines’ configuration files.

3.4.2 Clickable Buttons and Icons

The key to action a button or icon has been changed from a “Carriage Return” (CR) to the “Space” bar. When a button or icon has the focus then the “Space” bar will action any events

in the same way as a mouse click. The CR key will now move focus to the next field in the cycle.

3.4.3 Microsoft Azure SQL Database

PROIV Version 9.3R0 adds support for Microsoft Azure SQL Databases from PROIV running on either Linux or Windows operating systems. Access is as per SQL Server using an odbc connection configured to access the database on the relevant Azure portal.

3.5 New Features 9.2

3.5.1 Lite Client

Lite Client is a new browser-based deployment option for PROIV which allows web developers to embed PROIV screens directly within web pages without resorting to i-frames utilising Open Client.

Utilising Bootstrap CSS and its Fluid Grid the PROIV components displayed take on the styling and fluidity of the rest of the web page and as a consequence operate on many different devices.

However, this means that PROIV screen do not render in the same way as they do in OpenClient and the MFC. As an example, all components are sized based on their percentage of a line; as the browser is resized it may mean that some components no longer show all their data or even show at all; PROIV Components that aren't visible on the screen have no representation and as a consequence will cause components to shuffle around if they are made visible. There is more detail on the Fluid Grid in the documentation; see topic 870002.

All the Aurora maintenance screens have been updated to be presented in Lite Client rather than Open Client so you can see the difference in rendition and reactivity. If you want to show a screen in Lite Client the easiest thing to do is to add it into an Aurora menu and set the client display type to Lite Client.

3.5.1.1 Lite Client Demo

The Lite Client demo is accessible via the Operations tab of a client connector in the dashboard, see screen shot below. In order that the demo functions operate it is first necessary to load the demo; but this only occurs if you have selected "install demo functions" during the installation process. If you have not enabled the demo then you will need to load it manually via the PROIV Developer administration screens.

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base / Client Connector

Profile
default

VIRTUAL MACHINE APPLICATION CONNECTOR CLIENT CONNECTOR ANALYTICS LICENSING SYSTEM DATABASE LEXICON

CLIENT CONNECTOR / SETTINGS OPERATIONS

Description: Open Client service to connect to local installation of PROIV

Open Client

Default - Open Client Connection URL: http://localhost:9804/base-default/connect?SESSION_NAME=Default

Secure URL: http://localhost:9804/base-default/upConnect.html?SESSION_NAME=Default

Lite Client

Default - Lite Client Connection URL: <http://localhost:9804/base-default/lite-client/liteClient.html?service=Default>

Default - Lite Client (Secure) Secure URL: <https://localhost:9814/base-default/lite-client/liteClient.html?service=Default>

Default - Lite Client Demo Demo URL: <http://localhost:9804/base-default/lite-client/demo.html>

Default - Lite Client Demo (Secure) Secure Demo URL: <https://localhost:9814/base-default/lite-client/demo.html>

Simply select Default – Lite Client Demo and a new browser window will open presenting seven demo options on the left-hand side. This screen supports up to three concurrent PROIV sessions ; select “A simple Form” and the following Lite Client screen is displayed.

PROIV Lite Client Demos (v9.2.1.12.PR July 6 2019)

This page allows you to run up to three Lite Client sessions showing a demo function. Just click on a demo below to start a session.

Note that if this PROIV installation did not include the DEMOS then this page will not run the demo sessions.

1. A simple Form
2. A bigger form
3. Buttons and Icons
4. Popup windows
5. Embedded windows
6. A Paging Area
7. Component groups

Stop Session


[Lite Client documentation](#)

This panel holds up to three PROIV sessions [help](#)

A simple form that does not save any data it is just meant to demonstrate the layout of Lite Client components.

Name:

Address:

DOB: 

Phone:

Email:

Selecting option 2 adds another session:

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PROIV Lite Client Demos (v9.2.1.12.PR July 6 2019)

This page allows you to run up to three Lite Client sessions showing a demo function. Just click on a demo below to start a session.

Note that if this PROIV installation did not include the DEMOS then this page will not run the demo sessions.

1. A simple Form
2. A bigger form
3. Buttons and Icons
4. Popup windows
5. Embedded windows
6. A Paging Area
7. Component groups


[Stop Session](#)
[Lite Client documentation](#)

This panel holds up to three PROIV sessions [help](#)

A simple form that does not save any data it is just meant to demonstrate the layout of Lite Client components.

Name:

Address:


DOB: 

Phone:

Email:

A form showing a radio group, a checkbox, a listbox and a combobox. This form does not save any data it just demonstrates the display of Lite Client components.

Name:

DOB: 

Phone:

Ready: ☒

Group: ☐ Yes ☐ No

Area1:

area 7	name 7	01/07/2018	a loooooooooooooong message for record number 7
area 8	name 8	01/08/2018	a loooooooooooooong message for record number 8
area 9	name 9	01/09/2018	a loooooooooooooong message for record number 9

The sessions can be stopped by clicking the stop session button.

3.5.2 SQL Server On Linux

Version 9.2 introduces support for SQL Server on Linux. Via unixODBC and the Microsoft SQL Server ODBC driver for Linux.

Minimum software requirements as tested with PROIV are documented in the Linux section of these release notes, however the reader should refer to Microsoft web site for most up to date information on minimum requirements for SQL Server.

3.6 New Features 9.1

3.6.1 RPM Distribution for Linux

Version 9.1 introduces an alternative installation model for PROIV on x64 Linux using the Redhat Package Manager (RPM) found on a number of commercial Linux distributions. PROIV has been split into a number of different RPMs with associated dependencies and as a consequence allows you to install selected parts of the product on the operating system.

The RPMs can be installed manually using the RPM command; it is also possible to deployment via a yum repository. Refer to the version 9 installation guide for further details.

The following table outlines the RPMs, their content and dependent RPMs within the PROIV suite.

Product RPM	Dependent RPMs	Description
proiv-admin	proiv-virtual-machine proiv-licensing-core	PROIV Administrator, or what was known as runtime PROIV bootstraps. Needs the virtual machine to execute
proiv-analytic-services	proiv-jetty proiv-system-services proiv-licence-services proiv-licensing-core	PROIV Performance monitor and profiler
proiv-application-services	proiv-jetty proiv-system-services proiv-licence-services proiv-licensing-core	PROIV Task, REST and SOAP web services interfaces
proiv-client-services	proiv-jetty proiv-system-services proiv-licence-services proiv-licensing-core	OpenClient, Aurora client application services
proiv-demo	proiv-devel proiv-virtual-machine proiv-licensing-core	PROIV Demo functions, installed on top of PROIV Developer
proiv-devel	proiv-virtual-machine proiv-licensing-core	PROIV Developer
proiv-full	All RPMs	Suite install of entire product for single command installation
proiv-jetty	None	Bundled Jetty Web Application Server used by PROIV

proiv-licence-services	proiv-jetty proiv-licensing-core	Licence server required by virtual machine and application services
proiv-licensing-core	None	Shared licensing
proiv-system-services	proiv-jetty proiv-licence-services proiv-licensing-core	PROIV Dashboard allowing configuration of application profiles
proiv-virtual-machine	proiv-licensing-core	PROIV VM without any bootstraps.

Using this layered approach it is entirely possible to install combinations of product component on different operating system instances thereby allowing a much more flexible deployment. For example the Virtual Machine on one operating system instance with its licence server on another instance.

Note: RPM installation is only available on Redhat Enterprise Linux version 7.

3.7 New Features 9.0

The following new features are included in this release.

3.7.1 Hierarchical Configuration and Deployment Model

PROIV Version 9.0 Introduces the concept of a Hierarchical Configuration and Deployment model. This is achieved by the introduction of a new Configuration Dashboard which can be used to set-up and deploy multiple configurations for PROIV across your Enterprise. The requirement in Version 8 to maintain multiple configuration settings in various formats and dispersed locations is removed. The configuration of all your application is now managed in one place.

In addition to the configuration features of the dashboard it also introduces several other features:

- Enterprise management of configuration deployments using a new PROIV Dashboard
- Live Health Check status of all active deployments
- Segregation of Web Applications
- Separation of settings and operations

3.7.2 Native PostgreSQL Driver Support

The reliance of PostgreSQL database applications on Open Database Connectivity (ODBC) technology has been removed. Connection to the database is now achieved using native drivers provided with the PostgreSQL software. This greatly simplifies the configuration and reduces the maintenance overhead associated with keeping the ODBC drivers synchronized to the database versions.

3.8 Installation Differences

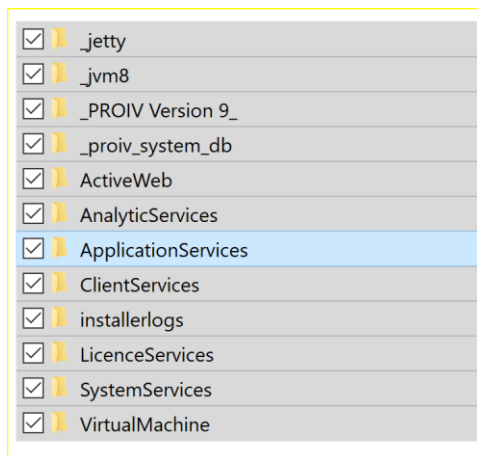
Up until the introduction of the RPM installation model; there was only one supported mechanism for installing PROIV; using a single installation executable generated with InstallAnywhere. This single installer is furthermore referred to as the “binary installer”.

3.8.1 Differences Between Version 8 and Version 9 Installations with Binary Installer

Version 8 comprised 5 different server processes, either services on Windows or daemon processes on Unix. This number has been increased slightly to provide services and names that better represent their functionality. The following lists the new V9 services and their components

V9 Service / Process Name	Purpose
PROIV V9 Analytic Services	Performance Monitor and Profiler
PROIV V9 Client Connector	Connection providers for Open Client and Aurora
PROIV V9 Application Connector	Connection providers for Analytics, Licensing, Gateway and Web Services
PROIV V9 Client VM	PROIV Virtual Machine serving interactive clients such as MFC Client and Open Client
PROIV V9 Gateway VM	PROIV Virtual Machine serving non-interactive clients such as Tasks and Web Services
PROIV V9 License Services	PROIV License server
PROIV V9 System Services	Database and Lexicon Services

The PROIV version 9 installed directory structure is revised to reflect the new server grouping. The following snapshot shows the directory structure of version 9.



- **_jetty** – the jetty web application server V9.1 and all the Jar files used by the V9 web applications. Note that the web applications no longer have multiple copies of the jar files
- **_jvm8** – the Java Virtual Machine used by the installation PROIV version 9 now uses Java 8.
- **_proiv_system_db** – a directory containing two databases, one for the lexicon and one for statistics. This is an internal database for statistics and lexicon. It should not be modified by anything other than the tools provided. It is not used to hold any application source and cannot be used as a file type for PROIV.
- **_PROIV Version 9_** - a directory containing the uninstaller for the product
- **installerlogs** – a directory with the log file created by the installer; if you have problems with installation then it is a good idea to send this into support if you need to report an issue
- **VirtualMachine** – the PROIV VM and bootstraps
- **ApplicationServices** – a configuration instance of Jetty which serves Gateway and Web Services

- ClientServices – a configuration instance of Jetty which serves OpenClient and Aurora
- SystemServices – a configuration instance of Jetty which serves The Dashboard, Statistics and Virtual Machine Configuration
- LicenceServices – a configuration instance of Jetty which serves the configuration for the license server.

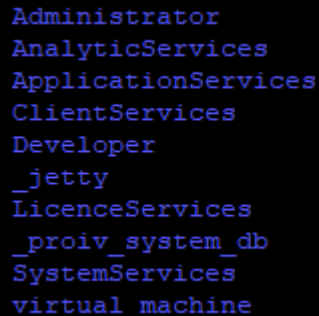
It is important to understand that there are multiple web application contexts created within each Jetty based web application server instance.

3.8.2 Differences Between Version 9 Binary Install and RPM Install

On Linux the binary installer will by default install PROIV into the /opt/zellis/proiv_version_9 directory; it also allows the user to customize the installation by changing ports, enabling external databases and setting passwords for the web applications.

The RPM installer is very different; it is not relocatable and installs the PROIV packages to a specific location of /opt/zellis/proiv/9. It also does not offer any customization of listening ports, admin usernames / password or configuration of external databases. For instructions on how to reconfigure these options refers to the installation guide.

The installation comprises the following directories:



```
Administrator
AnalyticServices
ApplicationServices
ClientServices
Developer
_jetty
LicenceServices
_proiv_system_db
SystemServices
virtual_machine
```

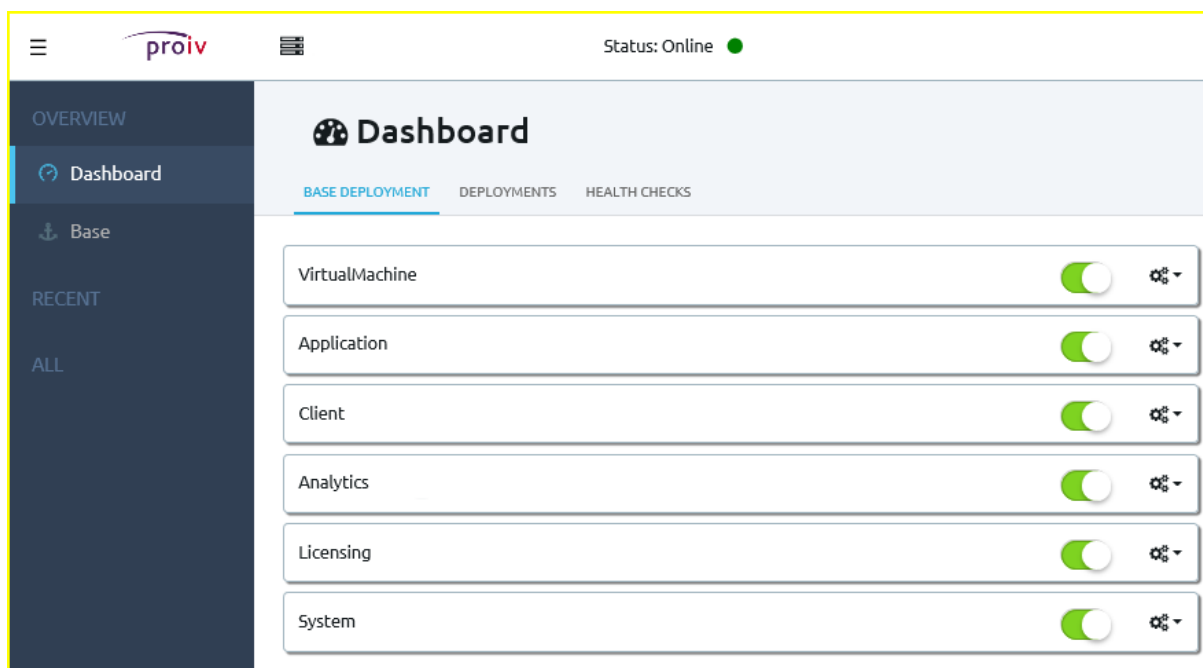
These are the same as the standard Version 9 install with the exception that the bootstraps are no longer found in the virtual_machine folder which only contains the executables and libraries required for execution. Developer and Administrator have been put into new separate folders as they are standalone PROIV applications just in the same way as any other application.

These two folders contain the bootstraps; images, xsl transforms etc which are required for execution of the application in that folder. The configuration file has been created accordingly to reference them.

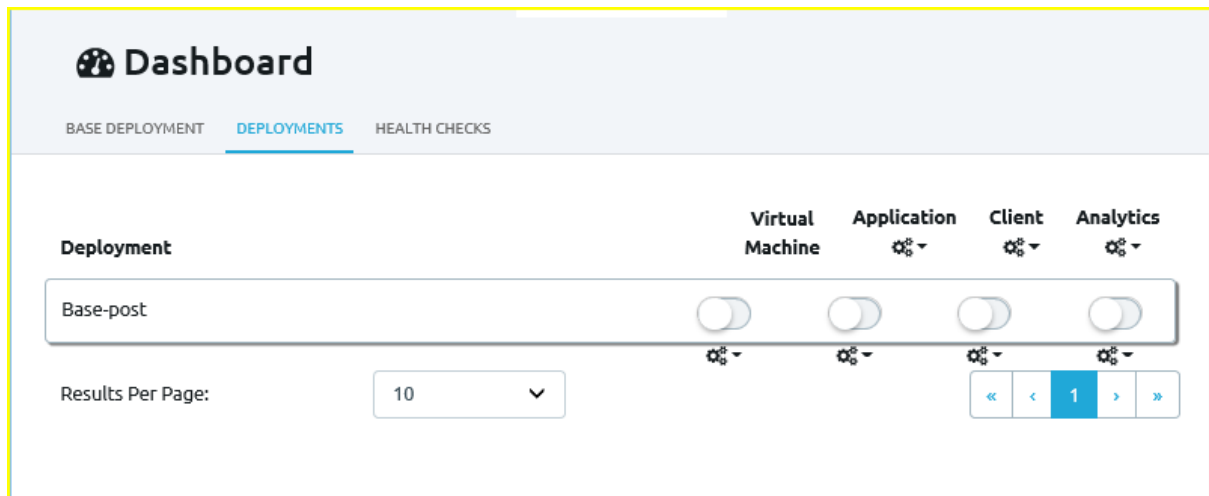
The RPM installer also supports upgrade in the same way as the binary installer; the upgrade process is documented in the Installation Guide.

3.9 Version 9 Dashboard

The new PROIV Dashboard replaces the Version 8 Control Panel and several other disparate means of configuring your system. It also allows you to deploy multiple configurations and environments across your enterprise and to check the status of these running deployments. The following screen shot shows the entry screen of the dashboard with the deployment state of each service within the default configuration.



The Deployments tab shows the deployment status of all configurations derived from the base deployment. In the screen shot below the deployment id of Base-post is shown indicating that none of the components are currently deployed for this configuration.



The third tab shows the cause and number of various failures that are detected. This screen also allows you to manage these failures by dismissing the alerts and making changes to the settings; e.g. enabling an smtp server to configure the format and recipients of emails and notifying an administrator of a health check event.

Dashboard

BASE DEPLOYMENT DEPLOYMENTS **HEALTH CHECKS**

Refresh Data Dismiss All Dismiss Selected Alerts Settings

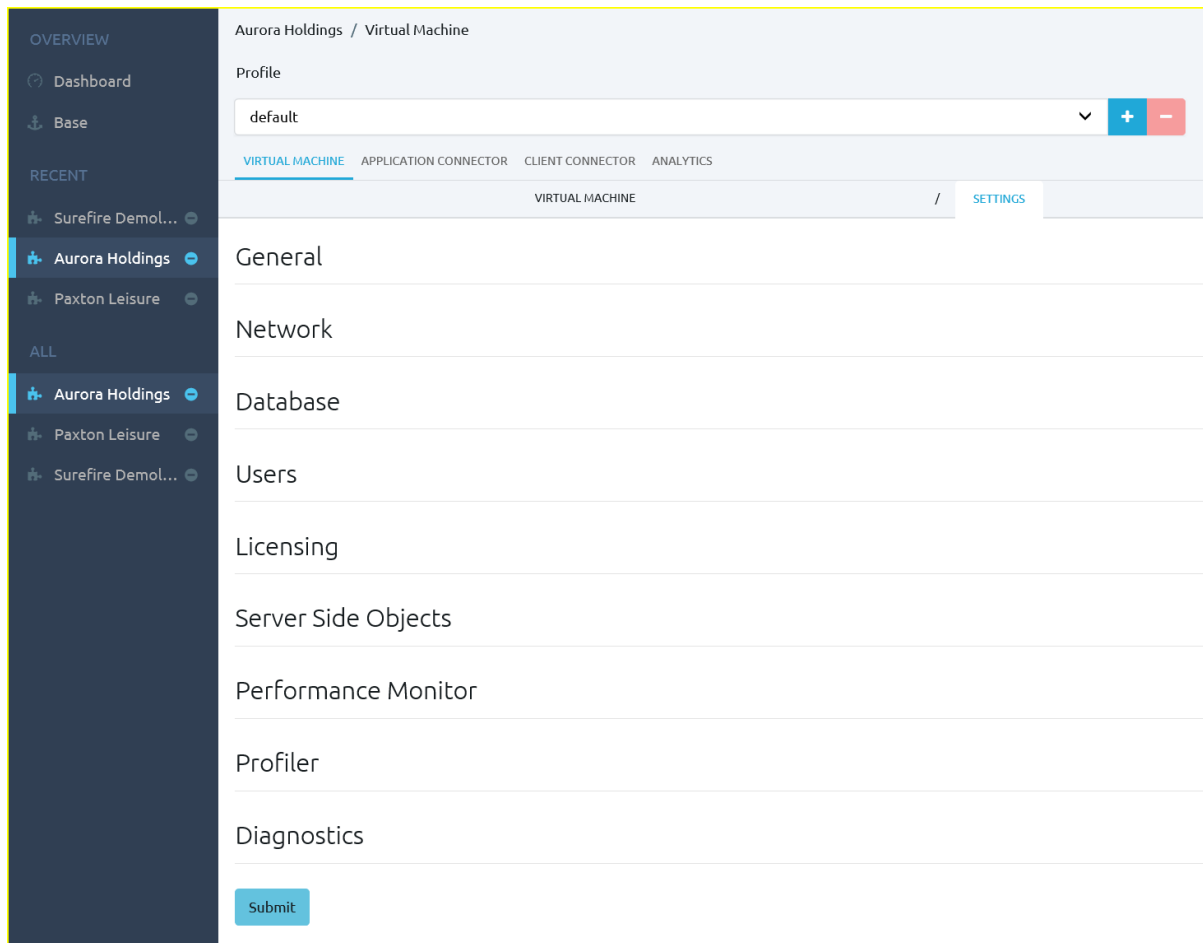
Results per Page: 5

Sort Order: First Fail Date (Asc)

DeploymentID	Component	First Fail Date	Last Fail Date	Restored Date	Count	Failure Log	Select
Base	VirtualMachine	07/09/2018 14:00:33	07/09/2018 14:30:38	01/01/1970 00:00:00	14	Fail - Response Code:Connection refused (Connection refused)	<input type="checkbox"/>
Base	Client	07/09/2018 14:00:37	07/09/2018 14:30:38	01/01/1970 00:00:00	7	Fail - Response Code:404	<input type="checkbox"/>
Base	Application	07/09/2018 14:05:38	07/09/2018 14:30:38	01/01/1970 00:00:00	6	Fail - ConnectorHealth - Task execute failed: Connection refused (Connection refused)	<input type="checkbox"/>

« ‹ 1 › »

The right-hand pane of the dashboard allows you to select the configurations you have set up to modify them.



Once selected navigate to the various components and sections to view the available settings

General

Network

Database

Default Database

PROPATH*

PRODATA*

Enable Rollback

Ignore Alternate Indices

Driver

General Database Settings

Display Lock Message

Display Error Message

Cursors

Timeout

Oracle Configuration

OCI8 Cache

Enable Warnings As Error

C:\Program Files\NorthgateArinso\PROIV Version 9\VirtualMachine\boots

C:\Program Files\NorthgateArinso\PROIV Version 9\VirtualMachine\boots

☐

☐

Driver

General Database Settings

Display Lock Message

Display Error Message

Cursors

Timeout

Oracle Configuration

OCI8 Cache

Enable Warnings As Error

AUTO

-1

Caching Disabled

☒

When all is done click the submit button at the bottom of the page.

The Operations tab allows you to access Demos and features like the Open Client connection URLs:

March 2021

Profile

default + -

VIRTUAL MACHINE APPLICATION CONNECTOR CLIENT CONNECTOR ANALYTICS

APPLICATION CONNECTOR / SETTINGS OPERATIONS

The health status of Application Connector is either unhealthy or unknown. This may affect any operations performed below.

RESTful Web Services Demo ▼

RESTful Web Services Test ▲

PROIV Demo Service PROIV demo service ▲

Use secure protocol: ☐

POST /tu_item Task: TK_RWS_TullemAdd

GET /tu_item Task: TK_RWS_TullemGet

DELETE /tu_item Task: TK_RWS_TullemDelete

PUT /tu_item Task: TK_RWS_TullemUpdate

SOAP WSDL ▲

Select one of the available web services below:

Name	Description
Demo Web Service	A demo web service

Results Per Page: 10 ◀ 1 ▶

When you have configured the given deployment, you need to deploy it to the PROIV Server. Navigate to the Deployments tab on the main PROIV Dashboard. If the configuration is already deployed indicated by green buttons, then it will need to be undeployed first by clicking on the buttons. Then the new configuration can be deployed by clicking on the buttons again, turning the configuration green. The following screen shows various deployments with some components deployed for each configuration (green) and others not (grey)

Dashboard

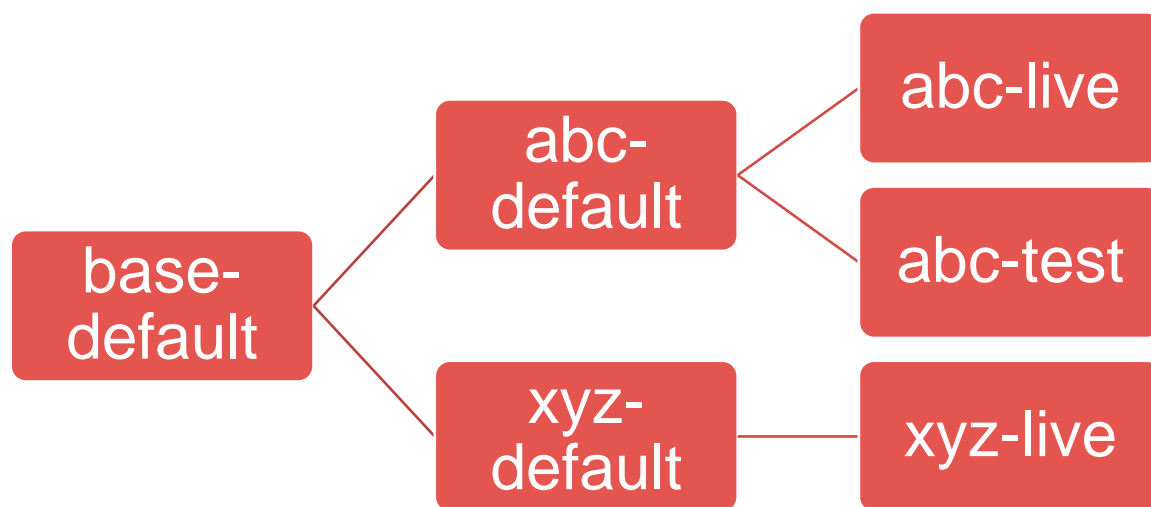
BASE DEPLOYMENT **DEPLOYMENTS** HEALTH CHECKS

Deployment	Virtual Machine	Application	Client	Analytics
abc	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
abcdefghijklmnopqrstuvwxyz0123456789aaaaaaaaabbbbbbbcccc	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
def	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
def-live	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
def-test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
xyz	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Results Per Page: 10 ◀ 1 ▶

Note that there are two configurations shown with the prefix def. One test and one live. These suffixes come from the selected Profile for a configuration which allow you to make configurations for various environments such as live and test in this case.

Note: All configurations are initially based upon the base-default configuration and profile combination. When you choose a new profile, it will inherit from the default profile of the current selected deployment. If you create live and test profiles they will both be available under the selected deployment and will inherit from the default profile of that deployment.



3.10 Connecting to PROIV

There are three ways to connect to the PROIV Virtual Machine:

- Legacy Green Screen
- Classic MFC Client
- OpenClient / Aurora

On UNIX platforms the PROIV Virtual Machine may be started with the ***runproiv*** script as per V8. In addition, the pro command in this script can be modified to provide the configuration id with the following syntax:

```
-c <config-id>
```

e.g. if “zellis” was a deployed configuration:

```
-c zellis-default
```

In the above example the virtual_machine/config sub folder will contain a file called:

```
zellis-default.properties
```

On Windows the default port for the Client VM server has changed to 9023 and the default port for the Gateway VM Server is now 9833. Changing these should only be done via the base properties on Windows as the Client and Gateway VM services will need to be restarted to use them.

3.10.1 Changing the Kernel Host Name on Windows

To use a kernel host, other than the standard default of localhost, you will need to add an entry in the ApplicationServices\start.d\proiv.ini file for the PROIV installation that you wish to change. Add the following as the last line in the file

```
-Dproiv.kernel.host=alt.host.addr
```

where alt.host.addr is the tcp/ip address of the host to redirect to. E.g.

```
-Dproiv.kernel.host=123.213.231.132
```

The services will need restarting for this setting to become active.

3.10.2 PROIV Servers

V9 has a number of services which need to be started on your system.

On Windows these can be found in the windows Service Manager and can be started / stopped as per previous releases via the Services Management Console application.

On Unix there are shell scripts in each of the following directories to start and stop the server instances.

```
$PROIV_HOME/ApplicationServices/bin
```

```
$PROIV_HOME/ClientServices/bin
```

```
$PROIV_HOME/SystemServices/bin
```

```
$PROIV_HOME/LicenseServices/bin
```

```
$PROIV_HOME/AnalyticServices/bin
```

3.11 Co-existence with earlier versions of PROIV

3.11.1 Windows Platforms

Version 9 (client and servers) can coexist with Version 8 on the same operating system instance; the servers utilize different listening ports. PRO-ISAM locks will also be shared between versions, however it is important to ensure that file definitions match otherwise there will be unexpected behaviour.

3.11.2 Unix Platforms

You can install PROIV Version 9 on the same system as PROIV Version 8; although it should be noted that some of the pre-requisites (e.g. Java version) for version 9 are different to version 8.

4 Component specific Information

4.1 Client Connector

4.1.1 Aurora

4.1.1.1 URL To Access Aurora

The URL to access Aurora depends on the port number provided during the installation of PROIV. The default port number is 9804 and the full URL is:

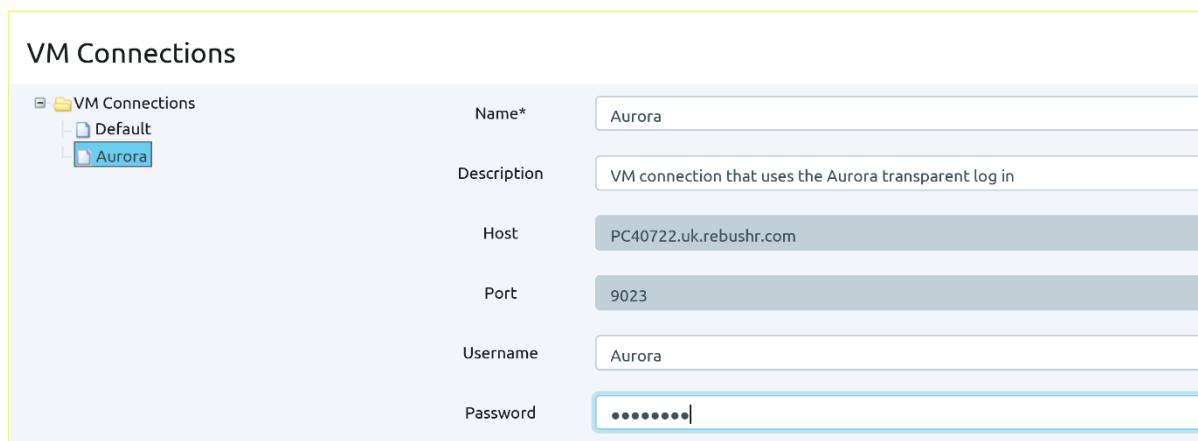
<http://<host>:9804/base-default/aurora>

Where <host> is the fully qualified domain name of the server on which you have installed PROIV.

4.1.1.2 Updates to Aurora Configuration on Unix

Once you have installed version 9.0 on UNIX, you will need to make some further configuration changes to allow PROIV Aurora to function.

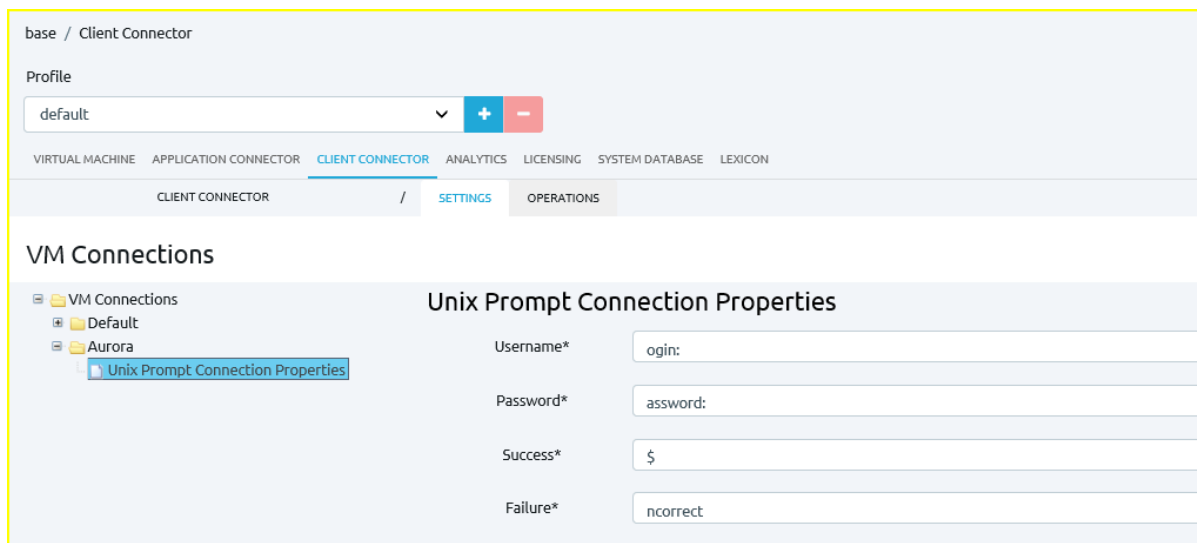
Using the PROIV Dashboard navigate to the Aurora Client Configuration area within the Client Connector configuration tab; in the VM Connections/Aurora panel enter a username and password which will successfully log into the Unix host.



The screenshot shows the 'VM Connections' configuration interface. On the left, a tree view shows 'VM Connections' expanded, with 'Default' and 'Aurora' sub-items. The 'Aurora' item is selected. The main area displays configuration fields for the 'Aurora' connection:

Field	Value
Name*	Aurora
Description	VM connection that uses the Aurora transparent log in
Host	PC40722.uk.rebushr.com
Port	9023
Username	Aurora
Password

Also, ensure that this user can connect to either an OpenClient session or an MFC Client session by running the **runproiv.sh** script which was created during the installation process. If required, update the prompts specified to allow processing of the Unix login.



When configuring Aurora, it is important to ensure that the Document Domain and Host Machine are the same otherwise Aurora will not successfully launch tabs within the framework.

4.1.1.3 Browser Security when using Aurora and the Open Client

Changes in browser security mean that cookies with the same name cannot be used in both HTTPS and HTTP requests. This means that if you have a HTTPS Aurora session and you try to open a HTTP Open Client session then the Open Client session will fail with a 404 error. In order to use both Aurora and Open Client in the same browser they must both use the same protocol either both HTTPS or both HTTP.

4.2 Application Connector

Application Connector has no differences over 9.0

4.3 Analytics

Analytics has no differences over 9.0

4.4 Licensing

Licensing has no differences over 9.0

4.5 Dashboard (zbd, lex, systemdb)

The v9.1 Dashboard has received a number of usability improvements since v9.0. This should make it clearer to the user whether a given configuration has been deployed following creation or modification.

5 Platform and Database specific Information

5.1 64-bit Linux

This release is supported on Linux operating systems as per the supported platforms section above. It is very important that the operating system has all vendor-supplied patches installed.

5.1.1 Supported Java Runtime Environments

PROIV on 64-bit Linux supports the Oracle Java 8 Runtime Environment. On this platform, the installation process will look in the following directories (as defined using regular expression) for an Oracle JRE.

/usr/*[jJ][rR][eE]*1*8*	/usr/*[jJ][aA][vV][aA]*8*	/opt/*[jJ][sS][Ee]*/jre
/opt/*[jJ][rR][eE]*1*8*	/opt/*[jJ][aA][vV][aA]*8*	/opt/*[jJ][rR][Ee]*
/usr/*[jJ][aA][vV][aA]*1*8*	/usr/*[jJ][sS][Ee]*	/usr/*[jJ][rR][eE]*
/opt/*[jJ][aA][vV][aA]*1*8*	/usr/*[jJ][sS][Ee]*/jre	/opt/*[jJ][rR][eE]*
/usr/*[jJ][rR][eE]*8*	/usr/*[jJ][rR][Ee]*	/usr/*[jJ][aA][vV][aA]*
/opt/*[jJ][rR][eE]*8*	/opt/*[jJ][sS][Ee]*	/opt/*[jJ][aA][vV][aA]*
/usr/*[jJ][aA][vV][aA]*/*[jJ]*	/opt/*[jJ][aA][vV][aA]*/*[jJ]*	/opt/*[jJ]*
/usr/*[jJ]*	/usr/jre1.8.0	/usr/local/jre1.8.0
/usr/java/jre1.8.0	/opt/jre1.8	/opt/jre1.8.0
/usr/jre8.0	/usr/local/jre8.0	/usr/java/jre8.0
/opt/jre8	/usr/jre8	/usr/local/jre8
/usr/java/jre8		

5.1.2 PostgreSQL

The reliance of the PostgreSQL database solution, in PROIV v9.0, on the ODBC layer has been removed. The solution now makes use of native PostgreSQL database drivers and is much easier to configure. The drivers required by PROIV on the Linux platform can be found in the following directory which is included in the LD_LIBRARY_PATH environment variable in the runproiv script:

```
$PROIV_HOME/virtual_machine/lib
```

5.1.3 Oracle

The Linux platform includes the Oracle 19c Instant client, it can be found in the directory of your installation as shown below. This directory is added to the LD_LIBRARY_PATH environment variable as part of the **runproiv** script. The Oracle 19c Instant Client is the minimum version required on 64-bit Linux platforms.

```
$PROIV_HOME/virtual_machine/lib/instant_client
```

Note: On Redhat Enterprise Linux version 8 the libnsl library is required for backwards compatibility. If this library is missing then it should be installed using the following yum command:

➤ `yum install libnsl`

5.1.4 SQL Server

Support for SQL Server is enabled through unixODBC. The unixODBC shared libraries must be added to the LD_LIBRARY_PATH in the *runproiv* script; failure to do so will result in the PROIV SQL Server interface not initialising correctly. By default after rpm installation of unixODBC these libraries are usually part of standard system library paths.

There are specific version requirements for unixODBC and the Microsoft odbc driver, please refer to the section [above](#).

Access to SQL Server is via an ODBC DSN (Data Source Name), these are configured as per the unixODBC documentation. By way of example; the configuration is a two part process; first the unixODBC driver manager needs to know about the Microsoft Linux ODBC Driver; this is typically done by adding a section similar to:

```
[ODBC Driver 17 for SQL Server]
Description=Microsoft ODBC Driver 17 for SQL Server
Driver=/opt/microsoft/msodbcsql17/lib64/libmsodbcsql-17.3.so.1.1
UsageCount=1
```

To the `/etc/odbcinst.ini` file.

The data source is then configured; this can either be a system data source in which the system config file `/etc/odbc.ini` or the users specific `.odbc.ini` located in their home directory. The content would include a section similar to the following:

```
[Stock]
Driver = ODBC Driver 17 for SQL Server
Server = localhost,1433
Description = Stock Control Database
```

In this case the Stock data source is defined as being on server local host accessible on port 1433.

To configure PROIV to access the database as the default SQL database you would set the connection string to

username/password/Stock

where username and password are replaced with the correct credentials for the database.

5.1.5 RPM Installation

RPM installation is only available on Redhat Enterprise Linux version 7 and 8.

The RPM installation requires the jq utility found in the Linux Extended Package Library; it is necessary to install the library as a yum repo using the following command.

```
[root@loccallinux]# yum install epel-release
```

Once the repo is installed you can install the jq utility using the command

```
[root@loccallinux]# yum install jq
```

5.2 Solaris

This release is supported on Solaris operating systems as per the supported platforms section above. It is very important that the operating system has all vendor-supplied patches installed.

5.2.1 Supported Java Runtime Environments

PROIV on 64-bit Solaris supports the Oracle Java 8 Runtime Environments on the Solaris platform. The installation process initially refers to the JRE path that is set in the JAVA_HOME variable; in case not found, it looks in the following directories (as defined using regular expression) for an Oracle JRE 8.

/usr/*[jJ][rR][eE]*1*8*	usr/jre1.8.0	/usr/*[jJ][dD][kK]*1*8*
/opt/*[jJ][rR][eE]*1*8*	/usr/*[jJ][rR][eE]*1*8*0*	/opt/*[jJ][dD][kK]*1*8*
/usr/*[jJ][aA][vV][aA]*1*8*	/opt/*[jJ][rR][eE]*1*8*0*	/usr/*[jJ][dD][kK]*1*8*/jre
/opt/*[jJ][aA][vV][aA]*1*8*	/usr/*[jJ][aA][vV][aA]*1*8*0*	/opt/*[jJ][dD][kK]*1*8*/jre
/usr/*[jJ][sS][Ee]*	/opt/*[jJ][aA][vV][aA]*1*8*0*	/usr/*[jJ][aA][vV][aA]*1*8*
/usr/*[jJ][sS][Ee]*/jre	/usr/*[jJ][rR][eE]*8*0*	/opt/*[jJ][aA][vV][aA]*1*8*
/usr/*[jJ][rR][Ee]*	/opt/*[jJ][rR][eE]*8*0*	/usr/*[jJ][sS][Ee]*
/opt/*[jJ][sS][Ee]*	/usr/*[jJ][aA][vV][aA]*8*0*	/usr/*[jJ][sS][Ee]*/jre
/opt/*[jJ][sS][Ee]*/jre	/opt/*[jJ][aA][vV][aA]*8*0*	/opt/*[jJ][sS][Ee]*
/opt/*[jJ][rR][Ee]*	/usr/*[jJ][rR][eE]*8*	/opt/*[jJ][sS][Ee]*/jre
/usr/*[jJ][rR][eE]*	/opt/*[jJ][rR][eE]*8*	/usr/*[jJ][dD][kK]*/jre
/opt/*[jJ][rR][eE]*	/usr/*[jJ][aA][vV][aA]*8*	/opt/*[jJ][dD][kK]*/jre
/usr/*[jJ][aA][vV][aA]*	/opt/*[jJ][aA][vV][aA]*8*	/usr/*[jJ][dD][kK]*
/opt/*[jJ][aA][vV][aA]*	/usr/*[jJ][sS][Ee]*	/opt/*[jJ][dD][kK]*
/usr/*[jJ][aA][vV][aA]*/[jJ]*	/usr/*[jJ][sS][Ee]*/jre	/usr/*[jJ][aA][vV][aA]*
/opt/*[jJ][aA][vV][aA]*/[jJ]*	/usr/*[jJ][rR][Ee]*	/opt/*[jJ][aA][vV][aA]*
/opt/*[jJ]*	/opt/*[jJ][sS][Ee]*	/usr/*[jJ][aA][vV][aA]*/[jJ]*
/usr/*[jJ]*	/opt/*[jJ][sS][Ee]*/jre	/opt/*[jJ][aA][vV][aA]*/[jJ]*
	/opt/*[jJ][rR][Ee]*	/opt/*[jJ]*
	/usr/*[jJ][rR][eE]*	/usr/*[jJ]*
	/opt/*[jJ][rR][eE]*	

	/usr/*[jJ][aA][vV][aA]*	
	/opt/*[jJ][aA][vV][aA]*	
	/usr/*[jJ][aA][vV][aA]*/*[jJ]*	
	/opt/*[jJ][aA][vV][aA]*/*[jJ]*	

5.2.2 Oracle

The Solaris platform includes the Oracle 18c Instant client, it can be found in the \$PROIV_HOME/virtual_machine/lib/instant_client directory of your installation. This directory is added to the LD_LIBRARY_PATH environment variable as part of the **runproiv.sh** script.

5.3 AIX

This release is supported on AIX operating systems as per the supported platforms section above. It is very important that the operating system has all vendor-supplied patches installed. See the Supported Platforms section for the currently supported Technology levels.

5.3.1 Supported Java Runtime Environments

PROIV on 64-bit AIX supports Java 8 Runtime Environments. The installation process initially refers to the JRE path that is set in the JAVA_HOME variable; in case not found, it looks in the following directories (as defined using a regular expression) for an Oracle JRE 8 and will use it in preference as it is found.

/usr/*[jJ][rR][eE]*1*8*
/opt/*[jJ][rR][eE]*1*8*
/usr/*[jJ][dD][kK]*1*8*/jre
/opt/*[jJ][dD][kK]*1*8*/jre
/usr/*[jJ][aA][vV][aA]*1*8*
/opt/*[jJ][aA][vV][aA]*1*8*
/usr/*[jJ]2[sS][Ee]*
/usr/*[jJ]2[sS][Ee]*/jre
/usr/*[jJ]2[rR][Ee]*
/opt/*[jJ]2[sS][Ee]*
/opt/*[jJ]2[sS][Ee]*/jre
/opt/*[jJ]2[rR][Ee]*
/usr/*[jJ][dD][kK]*/jre
/opt/*[jJ][dD][kK]*/jre
/usr/*[jJ][dD][kK]*
/opt/*[jJ][dD][kK]*
/usr/*[jJ][rR][eE]*
/opt/*[jJ][rR][eE]*
/usr/*[jJ][aA][vV][aA]*
/opt/*[jJ][aA][vV][aA]*
/usr/*[jJ][aA][vV][aA]/*[jJ]2*
/opt/*[jJ][aA][vV][aA]/*[jJ]2*
/opt/*[jJ]2*
/usr/*[jJ]2*
/opt/java1.8
/opt/java1.8/jre

5.3.2 Oracle

The AIX platform includes the Oracle 12c Instant client, it can be found in the \$PROIV_HOME/virtual_machine/lib/instant_client directory of your installation. This directory is added to the LD_LIBRARY_PATH environment variable as part of the **runproiv.sh** script.

Oracle may generate a warning return code “ORA-24347” when NULL columns are used in aggregate functions. This happens for all PROIV V8 and V9 versions. PROIV regards the warning as an error and rolls back the transaction. Within PROIV, this is only likely to happen with full function SQL.

You can instruct PROIV to ignore the Oracle warning by disabling the Enable Warnings As Error switch in the Oracle section of the Virtual Machine configuration in the PROIV Dashboard.

5.4 64-bit Windows

This release is supported on Windows operating systems as per the supported platforms section above. It is very important that the operating system has all vendor-supplied patches installed.

5.4.1 PostgreSQL

The reliance of the PostgreSQL database solution, in PROIV v9.0 onwards, on the ODBC layer has been removed. The solution now makes use of native PostgreSQL database drivers (libpq). If you wish to use PostgreSQL as your database you will need to download and install the PostgreSQL software from <https://www.postgresql.org/>. The Windows “Path” environment variable should be modified to include the paths to the PostgreSQL lib and bin folders.

5.5 Operating System Authentication to connect PROIV with Oracle database

On UNIX platforms, PROIV supports user authentication to establish connection between PROIV sessions and an Oracle database. You can configure an Oracle Database to authenticate (that is, verify the identity of) users or other entities that connect to the database. Authentication must be configured in two ways, such as through the PROIV application and from the Oracle database.

On the PROIV side, the username and/or password provided in the PROIV Dashboard settings should be blank. On the Oracle database side, you must set Oracle configuration to allow OS authentication. For more information, refer to Oracle documentation.

This will not affect standard database authentication of credentials, however should problems arise it is possible to connect using the existing method by setting the OCI Simple Logon property in the PROIV Dashboard. This cannot be used with OS authentication.

5.6 File System Support

PROIV is not supported on shared file systems such as SAMBA (SMB/CIFS), or NFS

6 Issues

6.1 Resolved Issues

PROIV Version 9.61 includes fixes for all issues fixed, in all versions, up to and including PROIV version 8.3R7-SR6 and the issues listed below.

6.2 Resolved Issues for v9.61.8 Service Release

Issue No	Description	PROIV Ref.
PRB0043755	Library missing error when trying to connect GUI client for V10	94418
PRB0043793	Custom authentication for Aurora not working	95937
PRB0043837	Hosting Aurora on separate machine from default installation server, see section 3.1.4	100725
PRB0043788	Gateway VM Licence Instigator ID generator not unique across different servers	100790
PRB0043873	Gateway/Client Virtual Machine Crashes	102206

6.3 Resolved Issues for v9.60.21 Maintenance Release

Issue No	Description	PROIV Ref.
PRB0043196	Function interface map copy over is ignoring called functions and using last function in list	68288
	Legacy Render Mode incorrectly defaults to true and should be false	82987
	SQL Timeout value, used by SQL Server, is defaulting to -1 (Do not wait if locked) and should be defaulting to 5 seconds	88987
PRB0043731	Added option to the PROIV Dashboard to enable automatic insertion of Lock Hints in Full Function SQL Statements	93239

6.4 Resolved Issues for v9.54.9 Service Release

Issue No	Description	PROIV Ref.
PRB0043568	Logic search of given keywords fails on a saved function list	87718
PRB0043592	Dashboard diagnostic setting does not output a specified trace file unless the Misc value is set greater than 0	88334
PRB0043654	Secure SSL Connection for Windows doesn't work	89940
PRB0043661	Adding a SOAP service with an output parameter of type array is not deployed by dashboard	90257

6.5 Resolved Issues for v9.53.4 Service Release

Issue No	Description	PROIV Ref.
PRB0043323	Logic editor 'settings' dialog does not allow developers to change font sizes – added a font size combo box.	74763

6.6 Resolved Issues for v9.52.20 Service Release

Issue No	Description	PROIV Ref.
PRB0043358	Validation message doesn't disappear when trying to save a SOAP webservice	77514
PRB0043360	Cannot save a function under SOAP service in PROIV Dashboard	77531
PRB0043396	Failed to import RESTful Web Services	79995
PRB0043408	A Screen function does not use two custom graphics in the Open Client session	81044
PRB0043404	RWS Max Request Size is not converted to bytes prior to content size check – the value entered is now in Mbytes with a maximum of 2000.	81196
PRB0043414	An Open Client session ComboBox does not list all drop down options alongside an Active Paging screen	81296
PRB0043420	A Listbox is incorrectly positioned in an Open Client screen as Legacy Render Mode defaults to true in version 9. This problem can be rectified by changing Legacy Render mode to false in the PROIV dashboard.	81702
PRB0043424	Cannot specify host for connector. See section 3.10.1	81979

6.7 Resolved Issues for v9.51.10 Service Release

Issue No	Description	PROIV Ref.
PRB0043102	When a record is added to an auto-expanded paging screen it is not rendered as the last record in the screen	60355
PRB0043209	Memory leaks using PostgreSQL on Windows	68738
PRB0043214	sel-range does not return the expected postgres data set	68818
PRB0043240	incorrect sql script output by developer for a file with alternate index	69390
N/A	Listbox RestoreSettings() does not work in MFC Client	70070
PRB0043269	Inserting a single key part in alternate mapping does not work	70673

6.8 Resolved Issues for v9.50.14 Maintenance Release

Issue No	Description	PROIV Ref.
PRB0042696	In Lite Client documentation, a link to Component Templates fails	46170
PRB0042035	Services and Uninstall PROIV Version 9 option are missing	46181
PRB0042260	TASK_EXIT() logic processing doesn't match the documentation	46183
PRB0042596	Error reported when exporting numeric Value Variables to JSON with &#@DECEDT enabled	46196
PRB0042382	Not able to rename or delete the open client VM connection on a profile when copied from another profile	46197
PRB0042270	Dashboard error messages after upgrade	46252
PRB0042785	Paging Areas do not permit mouse navigation by clicking on the Paging Icon.	47478
PRB0043020	Unable to use supplied ActiveX MSComCtl2.MonthView.2 [MSCOMCT2.OCX] until Registry HKEY_CLASSES_ROOT License key loaded	57013
PRB0043076	Dynamic Text not lining up correctly in Open Client when editing a line on a Paging Screen	59653

6.9 Resolved Issues for v9.43.2 Service Release

Issue No	Description	PROIV Ref.
PRB0043102	When a record is added to an auto-expanded paging screen it is not rendered as the last record in the screen	60355
PRB0043185	Access violation errors seen, leading to termination of the Virtual Machine service, when using transparent login.	67390 52120

6.10 Resolved Issues for v9.42.27 Service Release

Issue No	Description	PROIV Ref.
PRB0042615	Corrected processing of graphics filenames on the Windows client which are now case sensitive when obtaining the file from the internet	46253
PRB0042882	Product upgrade failed to start services	55720

6.11 Resolved Issues for v9.41.11 Service Release

Issue No	Description	PROIV Ref.
PRB0042382	Not able to rename or delete the Open Client VM connection on a profile when copied from another profile	27466
PRB0042485	Session hangs on search for unreferenced PROIV objects	46198
PRB0042501	Dynamic icons no longer respond to return key when focus has moved to the icon field	46200
PRB0042809	Receiving error message "Numeric Conversion Error - External Type of Numeric" when accessing a numeric field containing NULL value on a PostgreSQL database	48937
PRB0042837	SSH Connection failure on Windows Client	49906
PRB0042910	Report failing to print with "unable to find system default printer" error	54271

6.12 Resolved Issues for v9.4.28 Maintenance Release

Issue No	Description	PROIV Ref.
PRB0042099	Inconsistencies around sizes in defining numeric scratch variables	46188
PRB0042523	Value variable search does not return numeric value variables with matching value	46190
PRB0042702	Some logic commands (requiring a user interface) terminate the task when they are executed	46195
PRB0042256	Tracing output initialised from new config incorrect	46105
PRB0042255	Tracing headers only show Base-default config settings	46106
PRB0042694	Increased the JNI Max Memory limits on the PROIV Dashboard	46255

6.13 Resolved Issues for v9.3R0-SR2 (Build 9.3.1.29)

Issue No	Description	Linked Issues
PRB0042809	Receiving error message "Numeric Conversion Error - External Type of Numeric" when accessing a numeric field containing a NULL value on a Postgres 9.6 database	

6.14 Resolved Issues for v9.3R0-SR1 (Build 9.3.1.27)

Issue No	Description	Linked Issues
N/A	Call stack dump causes stack overflow exception	ZB-2249
PRB0042208	Progress bar loops multiple times during import in Open Client	ZB-2151
PRB0042458	Session crash on attempt to use logic to convert an empty string	ZB-2220
PRB0042605	Superfluous information being output in trace files	ZB-2234
PRB0042467	The dashboard permits the addition of a duplicate environment variable name	ZB-2196
PRB0042388	Custom message.properties file is incorrectly overridden by default message.properties	ZB-2182
PRB0042466	Incorrect information in documentation topid id 720295	ZB-2195
PRB0042603	Client Services stopping unexpectedly with "Out of Memory" error	ZB-2233
PRB0042667	SQL Environment variable does not get connection string from SQLDEFAULT setting	ZB-2243
PRB0042568	Display only fields have rendition issue in MFC Client whereas correct in Open Client	ZB-2239
PRB0041866	Non-standard network errors received from licensing comms code	PX-3310
PRB0042650	CTRL Key opens existing object calls and their Maps window	ZB-2238
PRB0042384	Run Time session shows the environment variable only after a regen	ZB-2180
PRB0042597	Numeric conversion error when accessing a Postgres table with DATE conversion	ZB-2232
PRB0041679	Linux installation incorrectly set start service reference for System Manager	ZB-1974
PRB0042442	Environment variable set in a new profile is incorrectly reset to the environment variable in the default profile	ZB-2188
N/A	Resolved some minor Memory leaks in Windows Virtual Machine	ZB-2242

6.15 Resolved Issues for v9.3R0 (Build 9.3.1.9)

Issue No	Description	Linked Issues
PRB0041965	Gateway server setting "Response Timeout" can now exceed 3600 seconds	ZB-2099
PRB0041999	AutoMap allows Array to be mapped to existing non-Array variable	ZB-2106

PRB0042037	New Profiles missing from the dropdown list until the dashboard is closed and re-opened	ZB-2114
PRB0042141	Missing p4api Libraries now including in distributions	ZB-2132
PRB0042178	Bulk Build wrapper is setting @\$COM6	ZB-2143
PRB0042251	Logic editor freezes when you try to copy some text while referencing a variable	ZB-2159
PRB0042473	Static attributes are lost when making changes in Forms Designer	ZB-2197
N/A	Memory climbed dramatically during Bulk Gen	ZB-2214
PRB0041919	Open Function dialog retained an incorrect name entered after correction was applied	ZB-2083
PRB0042188	Select/Sort logic disappeared on viewing cycle properties	ZB-2145
PRB0042501	Dynamic icons no longer respond to return key – See section 3.1.2	ZB-2205
PRB0042169	Updated Jabsorb jar file to later version 1.3.2	

6.16 Resolved Issues for v9.2R0-SR6 (Build 9.2.1.50)

Issue No	Description	Linked Issues
PRB0042567	@RFUNCT executed whenever a C-ISAM file is accessed with TP_ROLLBACK enabled	ZB-2237

6.17 Resolved Issues for v9.2R0-SR5 (Build 9.2.1.49)

Issue No	Description	Linked Issues
PRB0042605	Non-critical information included in trace file when only critical levels set.	ZB-2234

6.18 Resolved Issues for v9.2R0-SR4

The fourth service release of version 9.2R0 was not required.

6.19 Resolved Issues for v9.2R0-SR3 (Build 9.2.1.47)

Issue No	Description	Linked Issues
PRB0042292	Corrected errors and added missing information in Release Notes	ZB-2167
PRB0042254	Successive calls to a task result in an error when tracing enabled	ZB-2161

6.20 Resolved Issues for v9.2R0-SR2 (Build 9.2.1.45)

Issue No	Description	Linked Issues
PRB0042192	p4api protocol change affects passing of Array elements	ZB-2146
PRB0042176	Application Paging Model property is reset by a function 'Build' but is left unchanged by a combined function 'Build & Run'	ZB-2142
PRB0042175	Pressing F3 when creating a new function gives an error	ZB-2141
PRB0042159	Parameter '\$EndOfProcessStatus' is not populated on return from delete wrapper @VIPWP13	ZB-2134
PRB0042118	Display Only Dynamic Icon is not responding	ZB-2128
PRB0042112	Exporting a function as 'vpx' reports an error whereas exporting as 'json' doesn't	ZB-2126
PRB0042128	Developer Auto-Define truncates non-ASCII characters found in scratch variables	ZB-2124
PRB0042057	Documentation does not specify file must be moved to prodata	ZB-2118
PRB0042051	Attributes set for static objects are not shown in Green Screen	ZB-2117
PRB0041981	Isin of developer.out reports error with lcgrouppro. See known issues section, below, for pre-upgrade instructions	ZB-2104

6.21 Resolved Issues for v9.2R0-SR1 (Build 9.2.1.38)

Issue No	Description	Linked Issues
PRB0042021	Variable names with extended characters reported as errors by the logic editor – To Enable extended characters, set the value variable &\$@ParserIgnoresExtendedChars to Y	ZB-2112
PRB0041876	Ctrl-Break kills Unix kernels when JVM has been instantiated – See "Known Issues" below.	ZB-2071
PRB0041824	Developer wrapper function @VIPWP02 fails to import JSON	ZB-2043
PRB0041803	Function selection using @VIPW Partial, ignores the function type	ZB-2026
PRB0041937	If the REST response header mime-type is set to application/json then http API tools "soapui" and "postman" incorrectly received Content-Type as text/plain	PX-3312

6.22 Resolved Issues for v9.2R0 (Build 9.2.1.30)

Issue No	Description	Linked Issues
PRB0041872	Incorrect JRE Path being set in Dashboard	
PRB0041818	p4serp throws Java Exception when uploading a Licence file	
PRB0041815	UMSG time delay not working correctly	
ZB-1984	Open Client Fails to Re-deploy correctly after changing the code page	
PRB0041678	Logical database for Pro-Isam not supported in deployment model	
PRB0041557	EXPAND is not documented or listed as a reserved word	
PRB0041542	Terminal Type is goes blank when connect via SSH is selected	
PRB0041534	PROIV Client Crashes when activating User Runtime Interface	
PRB041239	The report "File / Function Xref Analysis Report" does not say which file it is for.	
PRB0041227	Cannot set SQL_NOSIG equivalent configuration parameter via dashboard	
ZB-1613	Port conflict warning preventing Application Connector from starting	
PRB0041104	Analytics Health Check gives 500 error	
PRB0041448	Page size varies when orientation changes in ExcelSSO	

6.23 Known Issues

During installations on the Solaris operating system, the installer may report that installation is complete before “isin” has completed processing the developer.out or administrator.out files. Please allow a few minutes after the “Installation Complete” message before attempting to use the software.

The new Health Check feature does not work on the Microsoft Windows Edge browser in early versions of Windows 10. This is due to a known issue in the Edge Browser which was corrected in the revised October 2018 Release of the Windows 10 operating system, version 1809.

Web Help fails to render some images correctly. This is due to file names contained in a WAR file being in mixed case and will be corrected in a future release. (Ref: ZB-1630)

The “Reduce JVM OS Signals” must be set to true for Unix/Linux platforms and false for Windows. On previous versions, prior to 9.2R0-SR1, the default for all operating systems was false and so this will need to be manually changed in the PROIV Dashboard for all Unix/Linux configurations. In the PROIV Dashboard, navigate to the Virtual Machine, Server-Side Objects section and enable the “Reduce JVM OS Signals” setting. New installations now set the toggle correctly so it should not be changed. The toggle may be removed in a later release.

Over time the number of files in the temp folders of ApplicationServices and ClientServices will increase due to deploying and re-deploying configurations. You should periodically remove these files to reduce problems with disk space and the impact on the time it takes to uninstall and re-install the application.

There is a difference in behaviour between the Open Client and the Windows Client when processing graphics assigned to an Icon when they are to be obtained from the internet. The Windows Client requires the internet settings to specify the URL of the graphics location on the internet and this is then used to access a file specified as the graphic for the icon. The Open Client allows the full URL, including the name of the file, to be assigned to the icon. From version 9.42 the name of the file used for the Windows Client is case sensitive (PRB0042615).

The default for the PROIV Virtual Machine's (VM) config setting for `proiv.virtualMachine.database.driver.general.enableSQLAlarm` is true. The default should be false otherwise a system crash may occur in the VM. This will be resolved in version 9.50 and the feature will be deprecated as it is no longer relevant.

Under Windows 10 the `@DemoFileSendRecieve` demo function will not transfer files to the default boots directory if the running process does not have permission to do so.

The Zellis logo features the word "zellis" in a bold, dark blue, sans-serif font. A red triangle is positioned above the "i", pointing towards the top right corner of the page. The logo is set against a light gray background that forms a large triangle pointing towards the bottom left corner.

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