Knowledge

Base

Exaquantum/PIMS

Limitation with Chromium based browsers and multiple user sessions

KB-1099-23

Document Summary	
Article Type	User Guide
Products Affected	Any
Versions Affected	Any
Function Affected	Web Browsing
Available Resolution	Workaround for per session user data directories
Audience	System Integrators and Administrators
Summary	For deployments of web services of Exaquantum and additional products where access is facilitated by terminal services, a workaround is required for Operators using common credentials and Chromium based browsers
Review Date	Document to be reviewed before February 2024

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Chapter 1 Introduction

Exaquantum and its additional products can service data to users via web services. Some deployments facilitate access to these web services via a terminal server hosting remote desktop sessions. For operators using common credentials to login to the terminal server and access Exaquantum web services using Chromium based browsers, a limitation has been found that limits the number of concurrent browser sessions to 1.

This document will detail this limitation and provide a workaround.

1.1 Audience

This guide is intended for system integrators and administrators.

Chapter 2 Issue

2.1 Issue Description

A limitation has been found with Chromium based browsers across multiple user sessions that use the same user profile. An example of this is Operators accessing a terminal server using the same login credentials.

The limitation is the number of browser sessions is restricted to 1. This results in only one user session can utilize the browser for accessing the web. For other user sessions, the browser will fail silently when initializing on program launch and the user cannot use the browser.

Notable browsers that are affected by this are Microsoft Edge and Google Chrome, as these support many of the Exaquantum web applications.

2.2 Root Cause

This issue is related to file locking of the User Data Directory, which by default is configured per user profile. File locking is performed on browser initialization to help prevent profile corruption. As the first instance of the browser process, running in the first user session, holds the file lock, the second instance cannot create the file lock and fails silently.

In Google Chrome, User Data Directory is by default set to:

```
%LOCALAPPDATA%\Google\Chrome\User Data
```

In Microsoft Edge, the User Data Directory is by default set to:

```
${local_app_data}\Edge\Profile
```

Chapter 3 Issue Resolution

3.1 Resolution – Configure per session User Data Directory

The resolution is to configure the browser User Data Directory variable – UserDataDir – per session rather than per profile. This can be carried out manually or by Group Policy which is detailed in the Chromium bug report linked in Chapter 4. Yokogawa Marex have successfully tested the following step for Microsoft Edge:

1. Deploy Microsoft Edge on the Terminal Server

2. Open the registry editor by running regedit on the Terminal Server

3. Configure the following registry key:

   HKLM:\SOFTWARE\Policies\Microsoft\Edge
   Value Name: UserDataDir
   Value Type: REG_SZ
   Value: C:\EdgeProfiles\${session_name}

4. Close the registry editor

For Google Chrome:

1. Deploy Google Chrome on the Terminal Server

2. Open the registry editor by running regedit on the Terminal Server

3. Configure the following registry key:

   HKLM:\SOFTWARE\Policies\Google\Chrome
   Value Name: UserDataDir
   Value Type: REG_SZ
   Value: C:\ChromeProfiles\${session_name}

4. Close the registry editor

Multiple user sessions of the same profile should then be able to open the Microsoft Edge browser and access Exaquantum web services.

Chapter 4 Further Reading

For further information please visit the Yokogawa Marex support website or contact YMX at the support@ymx.yokogawa.com email address.

The Yokogawa Marex support website is available at https://ymx.yokogawa.com/support

The Yokogawa Marex Knowledgebase is available at https://ymx.yokogawa.com/knowledge-base

Details of the bug report in the Chromium forum can be found at https://bugs.chromium.org/p/chromium/issues/detail?id=160676

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Highlights

The Highlights section gives details of the changes made since the previous issue of this document.

▪ Summary of Changes

This is Issue 1.0 of the document related to Product Library version 1.0.

▪ Detail of Changes

The changes are as follows:

Chapter/Section/Page	Change