

FRONTIER SOFTWARE

Supported Hardware and Software

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Supported Operating Environment	
Desktop PCs	For desktop apps:
Windows OS 7, 8.1,10 and 11 Memory 2.0 GB Concurrent memory utilisation CPU 2.0 GHz	Ichris International Comprehensive Human Resources Integrated Software — client chris²¹ Comprehensive Human Resources Integrated Software — client
Mobile Devices	For mobile apps:
iOS 12.5 and later Android 9.0 and later	MHR²¹ Mobile Human Resources WHS²¹ Workplace H&S
Browsers	For browser apps:
Chrome Latest Stable version (recommended) Firefox Latest stable version Safari (OS-X) Latest stable version Edge Latest stable version	Ichris International Comprehensive Human Resources Integrated Software — Browser HR²¹ Self Service EPM²¹ Performance Management (e-Performance) ER²¹ Recruitment Management (e-Recruit) MER²¹ Mobile Recruitment XPR²¹ Express Reporter IWF²¹ Intelligent Workflow PSP²¹ Payslip Portal ORC²¹ Organisation Charting ONB²¹ Onboarding LD²¹ Learning & Development WHS²¹ Workplace Health & Safety HCI²¹ Human Capital Intelligence REM²¹ Remuneration / Salary Reviews
Application Servers	For Business Rules Engine and RDBMS
Windows Server 2022, 2019, 2016 with .NET Framework 4.8.0 Red Hat Enterprise Linux Red Hat Enterprise 7 (x64) IBM AIX AIX 7.1 (IBM POWER systems) Oracle Solaris Oracle Solaris 11 (SPARC)	Memory 5 MB per concurrent user/ RDBMS 12 MB per concurrent user CPU 2.0 GHz minimum. Intel CPU or equivalent per 16 concurrent users. Multiple CPUs recommended. Disk Space 2-5GB per 1000 staff members; excludes attachment and audit data.
Note: The Application and Web Servers can run on the same Windows server.	
Web Servers	For mobile and browser apps
Windows Server 2022, 2019, 2016 with .NET Framework 4.7.2 App Configuration Database: MS SQL Server Express (Latest version. Free download. For app configuration only) or MS SQL Server – 2016 or later IIS 7.5 and above	Note: The App Configuration database can run on the same server or on a Database server Note: Ichris, HR²¹ and MHR²¹ require an x64 operating system
RDBMS	For mobile and browser apps
Microsoft SQL Server 2019 Express, 2019, 2017, 2016, 2014 Oracle 19c, 21c	XPR²¹ — Express Reporter — requires 2014 or later
Note: RDBMS can run on the Application Server or a Database Server	
<ul style="list-style-type: none"> The Application Server, Web Server and the RDBMS can run on the same server. All Operating systems and software must be running a service pack in the vendor's supported life cycle. 	

Browsers

To ensure the best possible user experience we recommend using the browser version supported by Frontier Software. These versions are tested during the Frontier Software Quality Assurance cycle and we ensure that our entire product line offers the same experience across all supported browsers.

- For Desktop, we support the current and previous major releases of the following browsers:
 - Microsoft Edge
 - Firefox
 - Safari (OS X)
 - Chrome.
- For mobile, we support the current and previous major releases of the following browsers:
 - Safari
 - Chrome

Each time a new browser version is released, we begin supporting that version along with the last two supported versions. The exception to this is Internet Explorer, where we only support Internet Explorer 11.

★ **Important:** We encourage you to use the latest browser versions to ensure the best user experiences and prevent potential security issues.

Microsoft Office

Desktop versions of 32-bit Microsoft Office up to Office 2016 are supported.

For email purposes, Office 365 is supported.

The desktop installed components of Office 365 for Word and Excel are supported.

Application server and database combinations

Application server and database combinations	
Application server	Supported databases
Windows Server 2022, 2019, 2016	Oracle 21c, 19c MS SQL Server 2019 Express, 2019, 2017, 2016, 2014
Oracle Solaris 11 (SPARC)	Oracle 21c, 19c
AIX 7.1 (IBM POWER systems)	Oracle 21c, 19c
Red Hat Enterprise 7 (x64)	Not supported

Enhanced runtime requirements

The Windows engine and BRE runtime update installation packages will install the following prerequisite software:

Windows runtime version	Prerequisite software	Versions Installed
9.0.x +	Microsoft Visual C++ 2015-2019 Runtime (x86)	14.23.27820.0
	Microsoft Visual C++ 2015-2019 Runtime (x64)	14.23.27820.0
8.5.x +	Microsoft Visual C++ 2015-2019 Runtime (x86)	14.23.27820.0
	Microsoft Visual C++ 2015-2019 Runtime (x64)	14.23.27820.0
	Microsoft Visual C++ 2013 Runtime Libraries (x86)	12.0.21005.1
	Microsoft Visual C++ 2013 Runtime Libraries (x64)	12.0.30501.0
7.5.xxx -8.4.x	Microsoft .NET Framework version 4.7.2 (x86 / x64)	
	Microsoft Visual C++ 2013 Runtime Libraries (x86)	12.0.21005.1
	Microsoft Visual C++ 2013 Runtime Libraries (x64)	12.0.30501.0
	Microsoft .NET Framework version 4.5 (x86 / x64)	4.5.50709.17929

Support for 64 bit servers

32-bit application server executables are compatible with 64-bit operating systems and 64-bit databases.

LDAP

LDAP and Application Server Combinations		
Type of Directory Service	BRE on Windows	BRE on UNIX
Microsoft Active Directory	Yes	Yes
Novell eDirectory ⁽¹⁾	Yes	Yes
NT4 Domain Security	Yes	No
OpenLDAP	Yes	Yes
Other LDAP	Limited support ⁽²⁾	Limited support ⁽²⁾

⁽¹⁾ Formerly NDS - Included with NetWare 4 and above

⁽²⁾ No known limitations with authenticating against other LDAP systems.

Single Sign-On (SSO)

Single sign-on (SSO) allows users to access multiple applications and websites by logging in once. The applications and websites the users access rely on an identity provider to verify that users have access permission. SSO reduces password fatigue and enhances usability. It also improves security by decreasing the points of access.

To use single sign-on with Frontier Software systems you must set up an identity provider using either Active Directory Federation Services (AD FS) or Security Assertion Markup Language (SAML2). AD FS runs on Windows Servers. SAML2 runs on Unix or Windows servers.

Internet Option for chris²¹ client

The Internet Option enables the chris²¹ client to be used over the Internet. It uses the Hypertext Transfer Protocol (HTTP) with Transport Layer Security (TLS) for secure data communication. This provides the user with the interface functions of chris²¹, while using the same secure communication as used between web browsers and web servers. Refer to Internet Option white paper.

Web Services option

The Web Services option enables the CHRIS Business Rules Engine to function as a service provider in a service-oriented architecture (SOA) with UDDI, WSDL and SOAP. The Web Services option enables the latest Web Services enabled tools and applications to be used for integration projects.

Acknowledgement

I,.....(authorised officer)
as.....(position), on behalf of
..... (name of employer)
acknowledge and agree:
a) to have read and understood the IT system requirement set out above; and
b) confirm(insert employer name) meets the minimum requirements set out by Frontier Software to operate the licensed solution.
..... Signature
..... Date