

Test system Build Diary 2023 R2 (V12 patch 34) Installation

Updated: 30/11/2023

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Disclaimer

This document is provided "as is" and is for your guidance and educational purposes only. It does not replace the Online documentation, nor is any warranty expressed nor implied for the steps described herein.

Document Information

Author: Mike Shaw, Sage UK X3 Support Team

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Introduction

What is a "Build Diary"

A Build Diary simply describes the steps taken by Sage Support to perform a task or tasks on our internal test systems. Build diaries could be created for major multi-node installations but may also just be describing the steps taken when installing a small hotfix, or anything in-between.

Why is this being shared

It may be useful for you to see the steps we have taken to create or implement some feature or installation, as this may highlight "gotcha's", issues encountered or just give you some guidance if you are planning something similar yourself.

You could potentially use these documents as the base for your own "Workplan document" (Described in "Overview of patching X3 and supporting technologies" <u>https://communityhub.sage.com/gb/sage-x3-uk/b/sage-x3-uk-support-insights/posts/sage-x3-technical-support-tips-and-tricks---march-2021-index</u>) when you are planning your own activities

Target Audience

This document is aimed at Sage X3 Certified Technical consultants. Sage prescribe that X3 system installation, maintenance, migrations, etc. should be performed by suitably qualified Sage X3 consultants. The prerequisite consideration would be for them to have the latest "Sage X3 Certified Technical Consultant" certification. You can read more about the Sage X3 qualifications and requirements in Sage University (

https://sageu.csod.com/catalog/CustomPage.aspx?id=20000242#tc)

Additional things to note

- This document does NOT purport to illustrate "best practice" for the task being described.
- The steps described will not necessarily be for a "perfect" task, as there may have been issues that needed to be overcome, worked around, or ignored.
- The Sage internal test system has network and hardware configuration specific to Sage.
- The Sage internal test system does not necessarily include a Windows Domain and has Sage sandbox specific Windows security setup, so operating system permissions are generally not discussed.
- If you intend to use these notes as a guide for your own activities, use with caution and perform your own testing to ensure the described steps are suitable and identify any additional considerations that apply to your own situation.
- Ensure you only install and use software you are licensed for.

What does this Build Diary describe?

This build diary primarily describes a fresh install of X3 2023 R2.



2023 R2 - installation build diary

Objective

I want to complete a fresh installation of Sage X3 2023 R2.

Starting architecture and notes

Single Windows Server 2022 server (Server name X3V12) Software already loaded: Windows Server 2022 OpenJDK 1.8 latest version Edge, Firefox and Chrome browsers Windows users setup (Local users) "x3admin" for installation and management "X3run" for service runtime

Summary of steps

Preamble

- Install pre-req components
- Install SQL Server 2022
 - SQL Server 2022
 - SSMS 19.2

Install X3 technology components

- MongoDb 4.4.22
- X3 Console 2.58.0
- Adxadmin 96.1.206
- SQL Server component 3.0.0
- Application 12.0.34
- Runtime 96.1.206
- Print Server 2.29.0
- Syracuse Server 12.19.0

Configure X3

Final setup and testing

Additional installations

- Install Elastic Search 8.11

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Documentation to use for planning and execution of this task

Sage Online documentation

Overall V12 documentation http://online-help.sageerpx3.com/erp/12/public/index.html

- Prerequisites overview
- Version 12 prerequisites
- Architecture and system requirements
- Installation procedure

Sage Knowledgebase articles or Blogs

Sage X3 version 12 latest release information <u>https://communityhub.sage.com/gb/sage-x3/f/announcements/146573/sage-x3-version-12-november-2023</u>



Initial steps

Make sure the server meets the requirements listed at <u>https://online-help.sageerpx3.com/erp/12/public/prerequisites_overview.html</u>

Update Firefox, Chrome, and Edge and check the versions conform to prerequisites <u>https://online-help.sageerpx3.com/erp/12/public/prerequisites_browsers.html</u>

Run Windows Update to ensure up to date on Operating System.

Check disk configuration to ensure have enough free space.

Install ODBC



Install SQL tools Launch MsSglCmdLnUtils 15.0.4298.1.msi



Install Microsoft Powershell

Latest version is recommended (64-bit). <u>https://learn.microsoft.com/en-us/powershell/scripting/install/installing-powershell-on-windows?view=powershell-7.4</u> Download from <u>https://github.com/PowerShell/PowerShell/releases/download/v7.4.0/PowerShell-7.4.0-win-x64.msi</u>

NOTE: the release notes (https://online-help.sageerpx3.com/erp/12/wp-static-

<u>content/news/en_US/x3-release-notes/index.html#/release/en-US/2023-r2-34</u>) say "*The runtime and console support PowerShell 7.3.*" but the prereqs (<u>https://online-</u>

<u>help.sageerpx3.com/erp/12/public/prerequisites_overview.html</u>) state "*Microsoft PowerShell 7.2 or later*" so it is not clear if the latest Microsoft Powershell version 7.4 can be used or not. After checking, it is confirmed that Powershell 7.4 **CAN** be used.

Launch "PowerShell-7.4.0-win-x64.msi"

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🖞 PowerShell 7-x64 Setup — 🗆 🗙
Welcome to the PowerShell 7-x64 Setup Wizard
The Setup Witzerd will install PowerShell 7-s64 on your computer. Click Next to continue or Cancel to exit the Setup Witzerd.
Back Next Cancel
📲 PowerShell 7-x64 Setup — 🗆 🗙
Destination Folder Click Next to install to the default folder or click Change to choose another.
Instal Preser Shell 7-or64 to:
a talan Portes a real Porte
C: Program Files PowerShell
Ciange
Back Next Cancel
🖉 PowerShell 7-x64 Setup — 🗌 🗙
Optional Actions
Initialization and Customization
Pure states
Add Powershell to Path Environment Variable
Finable ProverShell remotion
Disable Telemetry (Reboot or Restart of processes may be required)
Add 'Open here' context menus to Explorer
Add 'Run with PowerShell 7 context menu for PowerShell files
The application is distributed under the MIT license.
Please review the ThirdPartsNotices.txt
Back Next Cancel
🖉 PowerShell 7-x64 Setup — 🗆 🗙
Use Microsoft Update to help keep your computer secure and up to date
Microsoft Lipdate helps keep your computer secure and up to date for Windows and other Microsoft products, including PowerSitel 7. Lipdates will be delivered based on your current update settings. You can review or change these settings from the Windows Lipdate control panel.
Enable updating PowerShell through Microsoft Update or WSUS (recommended)
Use Microsoft Update when I check for updates (recommended)
See the Microsoft Update FAQ
Read the Microsoft Update Privacy Statement
Back Next Cancel
PowerShell 7-x64 Setup — 🗌 🗙
Ready to install PowerShell 7-x64
2
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back Sinstal Cancel

Pin "Powershell 7" to taskbar for easier launching. Launch and run "\$PSVersionTable"

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E PowerShell 7 (x64)			×
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Name			
PSVersion PSEdition GS Platform PSCompatibleVersions PSRemotingProtocolVersion SerializatLonVersion MSManStackVersion MSManStackVersion	7.4.8 Greg 7.4.8 Microsoft (1.6.9, 3.46, 3.4.8.6.) (1.6.9, 3.40, 3.4.8.) 1.1.8.1 1.1.8.1		
P5 C:\USeP5\KJadmin> _			
			J

Install SQL Server module for powershell

Latest version is recommended. v22 or above is mandatory <u>https://learn.microsoft.com/en-us/sql/powershell/download-sql-server-ps-module?view=sql-server-ver16</u> See "Installing Microsoft PowerShell" section in <u>https://online-help.sageerpx3.com/erp/12/public/getting-started_sage-erp-x3-installation-procedure.html#solution</u>

Launch Powershell 7 as Administrator

Run "Install-Module -Name SqlServer -Scope AllUsers -force"

Then run "Get-InstalledModule -Name SqlServer" to check results



We can see version 22.1.1 is now installed.



Installation of SQL Server 2022

https://online-help.sageerpx3.com/erp/12/public/prerequisites_windows-sql-server.html

Mount the SQL Enterprise ISO file Execute "setup.exe" Select New SQL Server stand-alone installation Deselect "Azure extension for SQL Server" Feature selection

Only need Database Engine Services Change "Instance root directory" as needed

Editen License Terms Global Rufes	Looking for Reporting Services? <u>Download it from the web</u> Fequres:	Feature description
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Set Named Instance

Instance Configuration						
Specify the name and instance	© for the instance of S	3. Server. Instance ID becomes part of the installation p	eh.			
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The default Service Acounts are OK, but need to customise the Collation

Specify the service accounts a	nd collation configuration.			
Edition	Service Accounts Colleges			
License Terres (Robot Robot	Microsoft recommends that you use a separate account for each 301, Server service			
Product Lindster	[fenice	Account Name	Parasent	Status Los
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Acure Extension for SQL Server	SQL Server Browcer	INT AUTHORITYL OCAL SERVICE		Automatic v
Feature Selection				
Feature Bules	Grant Perform Volume Maintenance Tasks privilege to SQL Server Database Engl	ne Senice		
Instance Configuration	This privilege enables instant file initialization by avoiding zeroing of data pages	. This may lead to information disclesure by allowing deleted content to be accessed.		
Server Configuration	Click here: for details			
Database Engine Configuration				
Feature Configuration Pulse				
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Select "Latin1_General" and check "Binary-code point".



Confirm "Latin1_General_BIN2" is now specified.



In Server Configuration you must specify "Mixed Mode" Enter "sa" password and select "Add Current User" as SQL administrator

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It is not required to change from default, but I will set my Temp DB location to "C:\SQLServerTempDB"



As I am running on a single server, I will limit the memory Updated: 30/11/2023 Page 10 of 49

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Click "Install" once ready

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Once completed, check the SQL Server services

File Action View	/ Help				
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Services (Local)	Name	Description	Status	Startup Type	Log On As
	Charles Spot Verifier	Verifies potential file system corruptions.		Manual (Trigger Start)	Local System
	SQL Server (SAGEX3)	Provides storage, processing and controlled access of data, and rapid transaction processing.			NT Service\MSSQL\$S
	SQL Server Agent (SAGEX3)	Executes jobs, monitors SQL Server, fires alerts, and allows automation of some administrative tasks.		Manual	NT Service\SQLAgen
	Canal SQL Server Browser	Provides SQL Server connection information to client computers.	Running	Automatic	Local Service
	SQL Server CEIP service (SAGEX3)	CEIP service for Sql server	Running	Automatic (Delayed Start)	NT Service\SQLTELE
	Character Server VSS Writer	Provides the interface to backup/restore Microsoft SQL server through the Windows VSS infrastructure.	Running	Automatic	Local System
	C. SSDP Discoverv	Discovers networked devices and services that use the SSDP discovery protocol. such as UPnP devices. Also announces SSDP		Disabled	Local Service

I will set the SQL Server CEIP and VSS services to manual start, as don't intend to use them.

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Installation of SSMS 19.2

NOTE: In the Prereqs online help we say "*With SQL Server 2019/2022, you should use SSMS 18.x in its latest version (18.9.1 as of May 2021).*" As the SSMS component is optional and independent from Sage X3 I am going to install the latest SSMS which is currently 19.2 (<u>https://learn.microsoft.com/en-us/sql/ssms/release-notes-ssms?view=sql-server-ver16#current-ssms-release</u>) After checking, it is confirmed that SSMS 19.2 **CAN** be used.

Execute " D:\Software\Microsoft\SSMS\SSMS-Setup-ENU_19.2.exe"

Pick the directory where to install into. In my case this is "D:\MicrosoftSSMS"



Once completed, restart the server as directed

Launch SSMS and test can connect to the SQL instance



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Configure SQL Server for secure connections

https://communityhub.sage.com/gb/sage-x3/b/sage-x3-uk-support-insights/posts/how-can-i-secure-my-sql-server-data-using-encryption

<u>https://learn.microsoft.com/en-us/sql/database-engine/configure-windows/configure-sql-server-encryption?view=sql-server-ver16</u>

https://learn.microsoft.com/en-us/sql/database-engine/configure-windows/special-cases-forencrypting-connections-sql-server?view=sql-server-ver16

I am going to use the Microsoft instructions and use the provided Powershell script to generate a self-signed certificate.

```
New-SelfSignedCertificate -Type SSLServerAuthentication -Subject
"CN=$env:COMPUTERNAME"`
-DnsName ("{0}" -f
[System.Net.Dns]::GetHostByName($env:computerName).HostName),'localhost
'`
-KeyAlgorithm "RSA" -KeyLength 2048 -HashAlgorithm "SHA256" -
TextExtension "2.5.29.37={text}1.3.6.1.5.5.7.3.1"`
-NotAfter (Get-Date).AddMonths(36) -KeySpec KeyExchange -Provider
"Microsoft RSA SChannel Cryptographic Provider"`
-CertStoreLocation "cert:\LocalMachine\My"
```

Administrator: C:\Program Files\PowerShell\7\pwsh.exe				
PowerShell 7.4.0 P5 C:\Windows\System32> New-SelfSignedCert >> -Onsiame (*(0)" -f [System.Net.Ons]::Ge >> -keyAlporithm "RSA" -keyLength 2048 -Ha >> -NotAfter (Get-Date).AddMonths(36) -Key >> -CertStoreLocation "cert:\LocalMachine\	ificate -Type S tHostByName(Ser shAlgorithm "SP Spec KeyExchang My"	<pre>SSLServerAuthentication -Subject "CN-Serv:COMPL vv:computerName).HostName), localhost ' M256" -TextExtension "2,5,20,37=(text)1.3.6.1. ge -Provider "Microsoft RSA Schannel Cryptograg</pre>		
PSParentPath: Microsoft.PowerShell.Secu	rity\Certificat	te::LocalMachine\My		
Thumbprint D781P092FC2A7824219712D8E4DCS8A8FE544293 PS C:\klindows\System32> _	Subject	EnhancedreyUrsgelist Server Authentication		

Install a certificate for a single SQL Server instance

- In SQL Server Configuration Manager, in the console pane, expand SQL Server Network Configuration.
- Right-click Protocols for <instance Name>, and then select Properties.
- Choose the Certificate tab, and then use the drop down to pick the X3V12 self-signed certificate, then click OK.

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Set "Force encryption" flag to "Yes" on the "Flags" tab whilst we're here.

Gene	ral			
Force	Encryption Strict Encryption	res		-
Hide	Instance	No		
Force En	cryption to enforce encryption	with TDS 7.x proto	col versions. If St	rict

Restart SQL server service for the changes to take effect. If the service does not start, don't panic, you'll see the following errors in the SQL Server ERRORLOG file

The server could not load the certificate it needs to initiate an SSL connection. It returned the following error: 0x8009030d. Check certificates to make sure they are valid.

If this is the case, follow the following article to resolve (SQL Server account needs permission to see the certificate) <u>https://learn.microsoft.com/en-us/troubleshoot/sql/database-</u>engine/startup-shutdown/event-id-33565-start-sql-server

Adding the permissions in "Manage Computer Certificates" will resolve.

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Certificates - Local Computer	issued to	~	Issued By		Famination Date	Intended Purnoses	Friendly Name	i e
Personal	PEISade X3 Mor	DR MONGO01 v	vladmin		19/11/2033	< Alla	Safe XI MonanDR	
Certificates	10X3V12		X3V12		28/11/2026	Server Authenticati	«None»	
Trusted Root Certification Authorities								
toteprise must								
Turted Publichers								
Untrusted Certificates		Permissions for X3	V12 private keys		×			
Third-Party Root Certification Authorities								
Carl Trusted People		Security						
Client Authentication Issuers		Group or user names:						
Preview Build Roots		SR SYSTEM						
Test Roots		S. Administrators (X)	3V12\Administrators)					
Remote Desktop		MSSQL4SAGEX	3					
Centricate Enrorment Requests								
Trusted Packaged App Installation Authorities								
Trusted Devices								
Windows Live ID Token Issuer			A03	Henov	<u>e</u>			
WindowsServerUpdateServices		Permissions for MSSQ	L\$SAGEX3 /	Bow Deny				
		Full control		2 0				
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Login with SSMS and see the error:



I am adding the self-signed certificate into the Trusted Root Certifation Authorities store to solve this one...

Castificates - Local Computer	A	1	Production Proto	Land IR	Friendle Advenue	eres.	A
Personal	Issued to	issued by	expension Date	intended Purposes	Priendly hame	309045	Centificate lem.
Certificates	AAA Certificate Services	AAA Cetificate Services	31/12/2028	Client Authenticati	Sectige (AAA)		
Trusted Root Certification Authorities	La Amazon Root CA 1	Amazon Root CA 1	17/01/2038	Client Authenticati	Amazon Root CA 1		
Certificates	Gl Amazon Root CA 2	Amazon Root CA 2	26/05/2040	Client Authenticati	Amazon Root CA 2		
Enterprise Trust	Amazon Root CA 3	Amazon Root CA 3	26/05/2040	Client Authenticati	Amazon Reot CA 3		
Intermediate Certification Authorities	La Amazon Root CA 4	Amazon Root CA-4	26/05/2040	Client Authenticati	Amazon Root CA 4		
Trusted Publishers	Baltimore Cyber Rust Root	Baltimore Cyberlinust Root	12/05/2025	Client Authenticati	DigiCert Baltimore		
Untrusted Certificates	Class 3 Public Primary Certificat	Class 3 Public Primary Certificatio	01/08/2028	Client Authenticati	VeriSign Class 3 Pu		
Third-Party Root Certification Authorities	Copyright (c) 1997 Microsoft C	Copyright (c) 1997 Microsoft Corp.	30/12/1999	Time Stamping	Microsoft Timesta		
Trusted People	DigiCert Assured ID Root CA	DigiCert Assured ID Root CA	10/11/2031	Client Authenticati	DigiCet		
Client Authentication losuers	DigiCert Global Root CA	DigiCert Global Root CA	10/11/2031	Client Authenticati	DigiCert		
Preview Build Roots	DigiCert Global Root G2	DigiCert Global Root G2	15/01/2038	Client Authenticati	DigiCert Global Roo		
Test Roots	DigiCert Global Root G3	DigiCert Global Root G3	15/01/2038	Client Authenticati-	DigiCert Global Ron		
Remote Desktop	CigiCett High Assurance EV Ro	DigiCert High Assurance EV Root	10/11/2031	Client Authenticati	DigiCert		
Certificate Encolment Requests	CigiCett Trusted Root 64	DigiCent Trusted Root G4	15/01/2038	Client Authenticati	DigiCert Trusted Ro		
Smart Card Trusted Roots	OST Root CA X3	DST Root CA X3	30/09/2021	Client Authenticati	DST Root CA X3		
Trusted Packaged App Installation Authorities	GlobalSign Root CA	GlobalSign Root CA	28/01/2028	Client Authenticati	GlobalSign Root CA		
Trusted Devices	GISRG Root X1	ISRG Root X1	04/06/2035	Client Authenticati	ISRG Root X1		
Windows Live ID Token Issuer	Microsoft Authenticode(tm) Ro	Microsoft Authenticode(tm) Root	31/12/1999	Secure Ernail, Code	Microsoft Authenti		
WindowsServerUpdateServices	Microsoft ECC Product Root Ce	Microsoft ECC Product Root Certi	27/02/2043	<al></al>	Microsoft ECC Prod		
	Microsoft ECC TS Root Certifica	Microsoft ECC 15 Root Certificate	27/02/2043	<44>	Microsoft ECC TS R		
	Microsoft Root Authority	Microsoft Root Authority	31/12/2020	<ab></ab>	Microsoft Root Aut		
	Microsoft Root Certificate Auth	Microsoft Root Certificate Authori	09/05/2021	<ab></ab>	Microsoft Root Cert		
	Microsoft Root Certificate Auth	Microsoft Root Certificate Authori	23/06/2035	<ad></ad>	Microsoft Root Cert		
	Microsoft Root Certificate Auth	Microsoft Root Certificate Authori	22/03/2036	«AE»	Microsoft Root Cert		
	Microsoft Time Stamp Root Cer	Microsoft Time Stamp Root Certif	22/10/2039	<ab></ab>	Microsoft Time Sta		
	WINO LIABILITY ACCEPTED, (c)97	NO LIABILITY ACCEPTED. (c)97 Ve-	07/01/2004	Time Stamping	VeriSign Time Stam		
	Starfield Class 2 Certification A.,	Starfield Class 2 Certification Auth	29/06/2034	Client Authenticati	Starfield Class 2 Cer.,		
	Starfield Services Root Certificat.	Starfield Services Root Certificate	31/12/2037	Client Authenticati	Amazon Services R		
	Symantec Enterprise Mobile Ro	Symantec Enterprise Mobile Root -	14/03/2032	Code Signing	«None»		
	Thavite Timestamping CA	Thavte Timestamping CA	31/12/2020	Time Stamping	Thavte Timestampi		
	USERInst RSA Certification Aut	USERInut RSA Certification Autho	18/01/2038	Client Authenticati	Section		
	VeriSign Class 3 Public Primary	VeriSign Class 3 Public Primary Ce	16/07/2036	Client Authenticati	VeriSign		
	VeriSign Universal Root Certific	VerSign Universal Root Certificati	01/12/2037	Client Authenticati-	VeriSign Universal R		

Test the setup by logging in with SSMS and running the following SQL (Should return "TRUE")

USE [master] GO SELECT DISTINCT (encrypt_option) FROM sys.dm_exec_connections; GO

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SQLQuey1sql - X3V12:SAGEX3.master (X3V12x3admin (69))* - I File Edit View Query Project Tools Window Help • <	Microsoft SQL Server Management Studio 品 命 み む む ツ ・ ペ - 図 - 戸 画 圓 8º 88 岬 周 画 印 1 1 1 1 元 主 巻 ま
Object Explorer • № Connect • № № • № ■ X3V12XSAGE33 (SQL Server 16.0.1105.1 - X3V12v.3admin) ■ Databases ■ Security ■ Security ■ Security ■ Replication ■ Anays On High Availability ■ Management	SQLQuey1sd1-X33V12v3admin(69))* * × USE [master] ⊖SELECT DISTINCT (encrypt_option) [FROM sys.dm_exec_connections; GO
Integration Services Catalogs SQL Server Agent (Agent XPs disabled) Zvent Profiler	100 % - 1 TRUE

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Install X3 technology components

https://online-help.sageerpx3.com/erp/12/public/getting-started_sage-erp-x3-installation-procedure.html

MongoDb 4.4.22

https://online-help.sageerpx3.com/erp/12/public/prerequisites_mongodb-on-windows.html

https://online-help.sageerpx3.com/erp/12/public/getting-started_MongoDB-installation-procedure.html

Additional notes when upgrading to MongoDB 4.x <u>https://gb-</u> kb.sage.com/portal/app/portlets/results/viewsolution.jsp?solutionid=220924660107620

Execute mongo-db-4.4.22.10.jar

at IzPack - Installation of Safe X3 MongoD8		– – ×
mongoD	B	step 6 of 20
B Peace choose the type of instalation ● Nodly instalation	ĸ	
(Nefe with billeck - http://cpack.org)		
	Previous	Next Quit
Select the installation pat D:\Sage\MongoDB	h:	
Service config	uration	
Configure the mongoDB	service	
MongoDB node identifier	MONGO01	
Path for the database data	D:\Sage\MongoDB\data	Browse
Path for logging information files	D:\Sage\MongoDB\logs	Browse
Path for configuration files	D:\Sage\MongoDB\config	Browse
Enable ipv6 support	2/01/	
Service configur	ration	
The server uses and accepts	only SSL encrypted connections.	
Path for certificates storage area D:	\Sage\MongoDB\certs	Browse
Please choose option for certificate in	stalation : n	
Certificate Aut	nority (CA) setup	
Certificate Aut	nority (CA) setup	s except : " and ".
Certificate Auth Passphrases can contain al alphanu Passphrase of CA	nority (CA) setup	s except : ' and ".

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Certifica	te data
(*) All heids are man	datory.
Country code	66
State/Province	Berks
City/Locality	Winnersh
Organization	Sage
Organizational unit/	Team UK
Name/Certificate Ov	vner x3admin
Email	x3admin@example.com
Days of validity	3650
bays or raidicy	0000
Mongodb s	erver setup
Passphrases can contain a	al alphanumeric and nonalphanumeric characters except : ' and ".
(*) Al fields are mandator	ý. And as a service the manufacture will be in clear buck in the configuration fits
of this MongoDB server !	ant as a service the passprintse will be in cear text in the configuration ne
Passphrase of server ••	•••••
Verification ••	
Host name (FQDN) x3	v12
Brack - Installation of Safe	ngoDB Perform External Processes Step 19 of 21
	Processing
["+":["date":"2023- MongoOB shell versio ("t":["date":"2023- commetting to: mongo ("t":["date":"2023- ("t":["date":"2023- ("t":"date":"2023- Implicit senion: se ("ot":"2024.""2023- ("t":["date":"2023-	<pre>carbon control co</pre>
¢	*
(Made with IzPack - http://zpack.	Previous Next Quit

Check the output in the window for any errors. These messages also echoed to "D:\Sage\MongoDB\Install_V4.4.22_xxxx.log"

Check the MongoDB service is running



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X3 Console 2.58.0

https://online-help.sageerpx3.com/erp/12/public/prerequisites_console.html Execute console-2.58.0.14-win.jar

Pick the installation directory

ზივе	Target Path Step 4 of 11
Select the installation path:	
D: (Sage (Console	Browse
(Made with IzPaok - http://izpaok.org/)	Previous Next Quit
IzPack - Installation of Sage X3 Management Console	- • ×
Sace	Perform External Processes Step 8 of 1
Process	ing
Process Microsoft .Net framework 4.7.2 is already installe	a a a a a a a a a a a a a a a a a a a
Process	ang a
Process Riccosoft .Bet framework 4.7.2 is sizedy installe	a a
Process Ricrosoft .Het framework 4.7.2 is sizeady installe	a a
Process Increased .3et framework 4.7.2 is already installe	ing ª
Process Microsoft .Net framework 4.7.2 is already installe	ing ª
Process Microsoft JHt framework 4,7,2 is already installe	ing ª
Process Microsoft Jet framework 4.7.2 is already installe	ing ª

Adxadmin 96.1.206

Execute adxadmin-96.1.206.jar

Select the installation	on directory
Sage	Target Path Step 4 of 10
Select the installation path: D:\Sage\ADXADMIN	Browse
(Made with IzPack - http://cpack.org)	Previous Next Quit

Pick the port number (I prefer to change from default of 1895 to 51895)

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Once completed, check the AdxAdmin service is running

File Action View	v Help				
🗢 🔶 🛅 🔛 🗄	Q 🕞 🛛 🗊 🕨 🗰 🖬 🕨				
Services (Local)	Name	Description	Status	Startup Type	Log On As
	Safe X3 MongoDB MONGO01	Safe X3 MongoDB MONGO01	Running	Automatic	Local System
	🖳 Sage Safe X3 AdxAdmin		Running	Automatic	Local System
	Secondary Log-on	Enables starting processes under alternate credentials. If this service is stopped, this type of log-on access will be unavailable		Manual	Local System

SQL Server component

Launch db-sql-3.0.0-win.jar

Enter component name

sage	User Data Step 4 of 9
Component Name	
Component name X3V12	
(Blade with Isflack - Hip /Repeak.org)	Previous Next Quit

Enter installation directory

Select the installation path: D:\Sage\X3V12\database

Application 12.0.34

Execute x3-application-12.0.34.jar

Pack - Installation of Sage X3 Application Component	- 🗆 X
Sage	Instalation Type Step 4 of 13
Please choose the type of installation:	
New installation	
O Moolly installation	
(Made with IdPack - http://izpack.org/)	
	Previous Next Quit

Enter component name

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Component Name

As I am doing single node installation, I will select "Standard"



Enter the installation directory

Select the installation path: D:\Sage\X3V12\folders

Runtime 96.1.206 https://online-help.sageerpx3.com/erp/12/public/prerequisites_windows-sql-server.html

Execute runtime-96.1.206.jar

Double check you have the pre-reqs installed!



၃၀၄၉	Installation Type Step 5 of 12
Please choose the type of installation: # New installation	
O Hodfy installation	
Hada with loffack - http://tipack.org/	Previous Next Quit

Enter component name



Enter installation directory

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Select the installation path: D;\Sage\X3V12\runtime

Once completed, check the messages for any errors



Print Server 2.29.0

- .

<u>https://online-help.sageerpx3.com/erp/12/public/prerequisites_print-server-on-windows.html</u> Execute print-server-2.29.0.15-win.jar

Enter component n	ame
ნივе	User Data Step 4 of 1
Component Name	
Corporational Idin 2	
phase with lattice - togo regions and -	Previous Next Quit

.

Enter installation directory



Select ODBC driver as needed (Probably not needed but I always select it!)
Select Odbc driver(s) to be installed



Will install SAP Crystal Reports runtime engine (Takes a few minutes for this bit)

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Processing	a
SAP Crystal Report Engine 13.0	1.34.4485
Initializations	
Summary	
Package name to be uninstalled: packageNama=SAP Crysta Package uninstallation log : packageOninstallCog=D:\Sa Package name to be uninstalled: packageNameSAP Crysta Package uninstallation log : packageUninstallCog=D:\Sa	1 Reports runtime engine for .NET Frame ge/X3V12/Print/CrystalEngine.uninstal1- 18 Reports runtime engine for .NET Frame ge/X3V12/Print/CrystalEngine.uninstal1-
Processing	
Package 'SAF Crystal Reports runtime engine for .NET F	'ramework (32-bit)' not found on this se
	SAP Crystal Reports runtime engine for .NET Framework (32-bit)
Package 'SAP Crystal Reports runtime engine for .NET F	'z amer Pease wat while Windows configures SAP Dystal Reports run engine for .NET Framework (J2bit)
ProcessingOK	Time remaining: 1 seconds
¢	
Made with InPack - Nito (Unser) and	
Processing	
15/15	
Package 'SAP Crystal Reports runtime engine for .NET Frame	ework (64-bit)' not found on this sea
ProcessingOK	
<pre>l file(s) copied.</pre>	
<pre>1 file(s) copied.</pre>	
1 file(s) copied.	
<pre>1 file(s) copied.</pre>	
Log file generated will be: D:\Sage\X3V12\Print\Setinstall ThitLalizations Create:	1-2023_11_28_11_45_36_472.log - Plea
Copy file D:\Sage\X3V12\Print\Config\adxeditionserverconfi	ig.template.xml to D:\Sage\X3Vl2\Pri

Once completed, check the messages for any errors. Messages are also written to "D:sageX3V12Print" directory in the "*.log" files

Syracuse Server 12.19.3.4 (Security hotfix version)

Previous Next Quit

https://online-help.sageerpx3.com/erp/12/public/prerequisites_web-syracuse-server-onwindows.html

Execute syracuse-server-12.19.3.4.jar

ჽივ	e		Installation Type Step 5 of 20
	Please choose the type of instalation:		
(Made with SPack - Mp. /	(pol.og)	Previous	Next Quit

Enter the installation directory



Enter the fields as required.

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In this case I am doing a single node install, so can use simplified certificate installation



Certifica	te Authority (CA) setup
assphrase can co *) Al fields are ma	ntain all printable alphanumeric and nonalphanumeric characters ndatory.
ssphrase of CA	

Enter password

Certificate data

Country code	GB
State	Berks
City	Winnersh
Organization	Sage
Organizational unit	UK
Name	x3admin
Email	x3admin@example.com
Days of validity	3650

Enter certificate data as needed



Enter server passphrase

As my runtime is on the same server, I can also select the X3 Runtime Path so the certificate file is automatically copied



MongoDB is setup for SSL connections only.

As MongoDB is already in place, I can select the client SSL certificate details from the MongoDB installation.

Once completed, check the messages for any errors (Also written into "D:\sage\Syracuse\Install_V12.19.3_xxxx.log")

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Processing Triang management for the second	Perform External Processe Step 17 of 2
Processing ritigy ritigging	
This selections_inc.yes Billy billy billy the period of the selection of t	
riaig eisipääne jiin jaa Diaig biilgääne järi jaala Diaig biilgääne järi jaala kuuluksi kuuluksi kuuluksi kuuluksi käreensistä, te Taapita dia ja ja dietsisi see reetekä, ö digettä see määtäkä, örersa Diedrillä (DBONG Bääne) terpeensimäismisjo diräähensi teemä kuuluksi opadijaattama optina (dishihded) is depenseted aad si	^
<pre>[10] the time - transmission of the second sec</pre>	ill be removed in a lat

Check you can get to Syracuse login page, using URL $\underline{http://localhost:8124}$

⊕ Sage FTP ⊕ X3 (0124) ⊕ X3 (443)		
	Soce	
	0080	
	Sage X3	
	Looke	
	<u></u>	
	Password	
	Remember me on this device	
	Forget password?	
	Sign In	

Login with user "admin" and password "admin" and enter new password

	Sage AS	
	New password for user 'admin'	
The admir	nistrator has requested you to set a new passwo	rd
New passwo	ird:	
1		
·		
Retype new	password	
netype new	passion.	
	Set new password	

Set new password that conforms to minimum requirements.

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Configure X3

Launch the X3 console

Set logging level to debug in the Console, settings

iecome				
Solutions	Save Cancel			
Sage X3 Print Server				
Sage X3 Webservice and ADC Server	දිරිදි Settings			
Sage X3 Business Intelligence Server	w			
Sage X3 Java Bridge Server	solution report adxadmin business_objects javaserver web console documentation global*			
Sage X3 AdxAdmin Administration Server	Parameter Value			
Sage X3 Documentation Server (V6 only)	config global adud authenticationmode default			
	config global aded defaultruntime			
	config global advd port 1895			
	config global aded user Administrator			
	config global.comm.timeout.long 14400000			
	config global comm timeout short 300000			
	 config plobal debug True 			
	config global editor file			
	config.global.file C:\Users\x3admin\AppData\Roaming\Sage\Console\config.xml			
	config global file default D:\sage\Console\config xml			
	config global filename config xml			

Save the change, then restart the console



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Create a new solution.	cm. method for the database to be used in your solution.
	Configuration by the console. Data server with a Sage X3 AdsAdmin Administration Server
i → 13 ©	O taxetal configuration Data server attracts a Sage XD Adolfon Administration Server The consist will generate the datasets locally it does not communicate with the data server.
e Hele	Back Net Cancel
_	
Create a new solution.	X
Select or enter the name	RM. of the server holding the database component to be used.
Server name:	V New
Server configuration	
Server name: X3V12	
User: x3admin	
Password:	View
Hele	Bick Here Cancel
5	
Create a new solution.	^
Select the database comp	onent to be used in you solution.
Name Family	Type Version Path Status
e Hele	Back Next Cancel
Create a new solution. Create a new solutio Enter a unique identifier fo	an. Y you solution.
Identifier":	X3V12
Label:	X3V12
Commentary displayed at the opening of the solution:	
* 20 characters maximum between A-Z	_ and 0-9.

Update the Data server section

Back Ok Cancel

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Save Configure Database	nfigure Application 🛛 🏠 Web publication 🛛 💥 Unconfiguration 🛛 🧟 Refresh 😗 Help
🔞 Data - Application	
<u> </u>	
Data server SQLSERVER on X3V12	
Parameter	Value
Component version	3.0.0
Db login	5ð
Instance sysadmin user password	******
Password for X3 folders schemas	
SQL Server instance name	SAGEX3
Database name	x3v12
DBMS version	16
DBMS tools installation path	C:\Program Files\Microsoft SQL Server\160\Tools
ODBC tools path	C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\170\Tools
Data directory path	D:\Sage\X3V12\database\data
Scripts directory path	D:\Sage\X3V12\database\scripts
Transactions log directory path	D:\Sage\X3V12\database\log
Data file initial size	200
	100

- Enter Instance sysadmin user password (as defined when installing SQL Server)
- Password for X3 folders schemas (as needed)
- SQL Server instance name, from drop down list
- Database name = x3v12
- DBMS tools installation path, from drop down list
- ODBC tools path, from drop down list

Click Save, then Configure Database

	guration type Configuration type Choose the configuration typ	c		
Full conf	liguration			~
😗 Help		Ok	Cancel	

Once finished, check the messages in "Trace" tab

Configuration	
🖄 Database configuration	
Qperation completed.	
e Hat	Details >> Close
Progression Parameter Trace	
2011/2011 24.34 Holin	

Configure Application section

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Application server Sage X3 on X3V12		
Parameter	Value	Initial value
Use Apache	false	
Apache installation path		
Version	R090	
linstallation path	D:\Sage\X3V12\folders	
Legislation	PRM	
Main runtime X3V12		
Parameter	Value	Initial value
Version	R096.001.00206	
linstallation path	D:\Sage\X3V12\vuntime	
pwsh[.exe] executable fullpath	C:\Program Files\PowerShell\7\pwsh	
Connection Encryption	Yes	
To at exercise and Banto		
Trust server certificate	No	
Sage X3 service port number	No 20100	
Sage X3 service port number User login for the Sage X3 service	No 20100 x3run	

- Use Apache = false
- Pwsh[.exe] executable fullpath , from dropdown list
- Connection Encryption = Yes (as I have already configured SQL server)
- Trust server certificate = No (as the certificate is a trusted CA)
- Sage X3 service port number = 20100 (default)
- User login for the Sage X3 service = x3run
- User account password = (enter x3run user password)

Click Save, then Configure Application, then "Yes" to continue



Check the messages in "Trace" tab once completed.

X Configuration				
Configu	ring the application			
S Error during configu	uration, please check trace file.			
e Helo				
Progression Parameter	er Trace			
Value V	puration generation transfer atabase X3V12	Successful completion Successful completion Successful completion Successful completion Error III		-
Website New York and an object Deferre 50 Attree 50 Attree 50 Attree 5 5 50 31 2 0 1 40 - 2 43 V/2 1 40 - 2 43 V/2 1 40 - 2 43 V/2 1 40 - 2 43 V/2 1 40 - 2 43 V/2 1 40 - 2 43 V/2 1 40 - 2 43 V/2 1 40 - 2 43 V/2 1 40 - 2 43 V/2 1 40 - 2 43 V/2 1 40 - 2 43 V/2 1 40 - 2 43 V/2 1 40 - 2 43 V/2 1 40 - 2 43 V/2	er Daar Son O Ere dung configuration pieces durc Configuration pieces durc Son Daar Son Daar	taer fe		Edult 10
		Margine Series (Constraint) (C	nd Konor	

28/11/2023 14:42:40 : INFO - Database schema X3 is available and storages are online (RunVerifSchemaBaseSqlServer) 28/11/2023 14:42:44 : ERROR - Error while performing valfil test on AABREV : NOK. (LibAdm.CheckValfilNT) An error occurred

28/11/2023 14:42:44 : ERROR - Error while performing valfil test : ERR_VALFIL_TEST. 28/11/2023 14:42:44 : ERROR - Please check file on server : D:\Sage\X3V12\folders\X3\FILPLAT_valfiltest.tra

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28/11/2023 14:42:45 : WARN - Error No 76 28/11/2023 14:42:45 : WARN -28/11/2023 14:42:45 : WARN - [Microsoft][ODBC Driver 17 for SQL Server]SSL Provider: The target principal name is incorrect. 28/11/2023 14:42:45 : WARN -28/11/2023 14:42:45 : WARN - : SQL Server Error 28/11/2023 14:42:45 : INFO - Application configuration failed : main runtime installation status will be reset To 'idle'. (LibAdm. RollbackMain) 28/11/2023 14:42:46 : FATAL - Configuration aborted 28/11/2023 14:42:46 : FATAL - ERR_VALFIL_TEST

Tested using ODBC connection and fails with same error.



When I selected "Trust Server Certificate" = Yes, then it gave different error complaining about Shared Memory.



Disabled Shared memory and restarted SQL Server service



This then worked OK for ODBC connection. Subsequent testing found this error only happened if I tested with "Trust Server Certificate" = No first. If I launched ODBC and tested "Trust Server Certificate" = Yes first then it worked OK, so re-enabled Shared Memory and restarted SQL Server services.

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Re-run the Application Configuration after changing "Trust server certificate = Yes"

Application server Sage X3 on X3V12	
Parameter	Value
Use Apache	false
Version	R090
lnstallation path	D:\Sage\X3V12\folders
Legislation	PRM
Main runtime X3V12	
Main runtime X3V12 Parameter	Value
Main runtime X3V12 Parameter	Value Rosc 001.00006
Main nurtime X3V12 Parameter & Venion & Installation path	Value R056.001.00206 D. Sage/V3/V22 writine
BMan nutime X3V12 Parameter Bi Installation path preval (excepted) excepted fullpath	Value ROIS (001 00006 D - Sager V3012 entrine C - Nhygan Fred Vlowed Bell V gweh ere
Main runtime X3V12 Parameter & Instalation path privit(see) executable fullpath Connection Exposition	Value R056.001.00206 Dr.Soge VDVI2? vortime C. NPogran Files VPowerShell V? gowth.ase Yes.
Man surtime X3V12 Parameter E Version Installation path pwelig keel executable fullpath Connection Encryption Tool server coefficiente	Value R056.001.00006 D-Sagar V3/12 outline C-Mpagnan File / PowerShell / Cynah exe Yes
Man runtime X3V12 Parameter @Version @Instalation path prefit (see) executable fulpath Connection Encryption Tool server coefficient Sage X3 server port number	Value Rolo 001.00206 Dr.Sage VDVI2 Portime C. NPogran Files PowerShell / Powsh.ese Yes Zono 2010
Main nurtime X3V12 Parameter Binstation path particle securities fully at connection Encryption Torist server confering Sage X3 service port number User login for the Sage X3 service	Value R056.001.00006 D-Sagar V3/12 outrine C-Negraps Filet PowerShell V push ese Yes 20100 Jahn

Save, then run Configure Application and select OK to confirm.

9	• •
Configuration	application
 Operation completed. 	
Help	
Progression Parameter Trace	
Action	Status
 Main runtime configuration Application scripts generation 	Successful completion Successful completion
✓ Application scripts transfer	Successful completion
 Database admin user creation Data loading into database X 	Successful completion
Progression Parameter Tr	ace
Regeneration in Progress 24	740
Regeneration in Progress : 26	/40
Regeneration in Progress : 27 Regeneration in Progress : 28	/40
Regeneration in Progress : 29	/ 40
Regeneration in Progress : 31	/40
Regeneration in Progress : 32 Regeneration in Progress : 33	/40
Regeneration in Progress : 34	/ 40
Regeneration in Progress : 35 Regeneration in Progress : 36	/ 40
Regeneration in Progress : 37	/ 40
Regeneration in Progress : 39	/ 40
Regeneration in Progress : 40 Regeneration in Progress : 40	/ 40 / 40 Regeneration of the Index Table
28/11/2023 15:28:12 : INFO	- Valifitest performed with success.
28/11/2023 15:28:12 : INFO 28/11/2023 15:28:12 : INFO	- Database x3v12 loading - 804 tables found
28/11/2023 15:28:12 : INFO	- 0000/0804 tables loaded - 00% - 40 tables AABREV - ACODIF are being loaded
28/11/2023 15:31:46 : INFO	 - 0040/0004 tables loaded - 05 - 40 tables AEVTREE - AMENUSER are being loaded - 0080/0804 tables loaded - 10% - 40 tables AENTREE - AMENUSER are being loaded
28/11/2023 15:32:00 : INFO 28/11/2023 15:32:48 : INFO	O120/0804 tables loaded 15% 40 tables AMETUTI - APARIMPEXP are being loaded 0150/0804 tables loaded 20% 40 tables APATCH - ASHWEYPPPO are being loaded
28/11/2023 15:34:01 : INFO	0200/0804 tables loaded - 25% - 40 tables ASHWFLD - AVIEWC are being loaded
28/11/2023 15:36:11 : INFO 28/11/2023 15:36:24 · INFO	 - 0240/0804 tables loaded - 30% - 40 tables AVIEWD - BP1096PRN are being loaded - 0280/0804 tables loaded - 35% - 40 tables BP1099PRN - DATEVTAX are being loaded
28/11/2023 15:36:34 : INFO	- 0320/0804 tables loaded - 40% - 40 tables DCLVATPORT - EDISEQFILF are being loaded
28/11/2023 15:36:44 INFO 28/11/2023 15:37:06 INFO	 - U360/U804 tables loaded - 45% - 40 tables EDISTO - ESLTYPASSD are being loaded - 0400/0804 tables loaded - 50% - 40 tables ESSDOCBLB - GAUTACED are being loaded
28/11/2023 15:37:26 INFO	- 0440/0804 tables loaded - 55% - 40 tables GAUTACEF - HRDSFFCY2 are being loaded
28/11/2023 15:37:46 INFO 28/11/2023 15:37:55 INFO	 - 0400/0004 tables loaded - 50% - 40 tables MMDSHCT3 - MMDSHCT3
28/11/2023 15:38:03 : INFO	- 0560/0804 tables loaded - 70% - 40 tables ITMCATEG - PJMAFF are being loaded OCO (0804 tables loaded 75% 40 tables PIMAUS PLACED FOR FACED F
28/11/2023 15:38:16 INFO 28/11/2023 15:40:30 INFO	 - UDUD/UDU4 tables loaded - /5% - 40 tables MJMAUS - MLSBUNFACO are being loaded - 0640/0804 tables loaded - 80% - 40 tables RPTDS - TABCOEFF are being loaded
28/11/2023 15:40:40 : INFO	- 0680/0804 tables loaded - 85% - 40 tables TABCOSTMET - TABVATEXE are being loaded 0720/0804 tables loaded - 85% - 40 tables TABCOSTMET - TABVATEXE are being loaded
28/11/2023 15:41:35 INFO	 0760/0804 tables loaded - 95% - 40 tables VATEXEREA - AUPDATELINE are being loaded
28/11/2023 15:41:38 : INFO 28/11/2023 15:41:40 INFO	 - 0800/0804 tables loaded - 100% - 4 tables AUPDATEPATH - AUSRSTA are being loaded - Database x 3x12 loaded in 00:11:35 6292096
28/11/2023 15:41:41 INFO	- Launching D. Sage X3V12Volders X3\FILPLAT\X3_Misc.sol. (LbAdm.LaunchMisc)
28/11/2023 15:41:42 INFO	D:\Sage\X3V12\folders\X3\FILPLAT\X3_Msc.sql executed. All tables baded into database x3x12 with no entry. (I b Adm B) in\/a/EIM>
28/11/2023 15:41:42 : INFO	- Updating Adxinstalls xml on X3V12
28/11/2023 15:41:42 INFO	Update of advinstalls.xml on application server.ok. Ok
28/11/2023 15:41:42 INFO	- Updating solution.xml on X3V12
28/11/2023 15:41:42 INFO	File solution xml on application server updated. Indate of solution xml on application server ok
28/11/2023 15:41:42 INFO	-Ok
28/11/2023 15:41:42 INFO 28/11/2023 15:41:42 INFO	- Application setup finished.
INTO THE EVEN TO THE THE	(print)

Configure Print Server Add Print Server and pick existing connection from the drop down

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- 1 N	6	X	2	0					
	Solutions	Delete Part server	Save Configure Database	Configm	Assister Award attaction	theoreman	2 Retrot O Help		
54	ege X3 Part Sen								
	8 2 0		📷 Data - Applica	tion					
			Osta server SQLSERVER on 2	CIV12					
			Faraneter		Value				
			Component version		300				
			Do logit Instance and him and a second		10				
			Paseword for X3 folders achema			KS Search			
			\$101 Server Instance many		SAGEXO		and the second second		
			Cutablere name		439.12 18	- 44	"Plane chose the twoet only	win the list Click on "New" b	aton the add
			DBMS toole installation path		C-Program Res' Microsoft SQL Server	160			
			COBC tools path		C Program Ries' Microsoft SQL Server	Clert	2 20-11		
			Culta destary path		D. Sage 0.2V12 database videa D. Sage 0.2V12 database videa		Server name 5352		New
			E Transactions log directory path		D'SageVOV12'database'aug	Server or	dauter		
					and the second	-	farmente La 12		
			Popilization server Sage X3 on	×1/12			100 Mare 12012		
			Parameter		Value		Port number: \$1895		
			Use Apache		Salar .		User: Gadnin		
			Ended-on path		D.\Saoe\X0V12Voblem		Password		View
			Elegation		PRM				
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erch Si C	age X3 com Component hoose the co	nponents nt choice omponent to be c	Paranter Bitmon configured		VAL ROSE DO ISCOS	* <mark>0 ***</mark>	91		
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age) om	13 com poner e the co	nponents nt choice omponent to be o Family REPORT	Persente artinomo configurent. Type Venion co12229	Path D\\Sege\	Vela Intopis son socials Status COVI2-Inter da	× 0 ===	<u>N</u>		
rch S C G 3V12	age X3 com component hoose the co	nponents nt choice omponent to be o Family REPORT	Pearate always configured. Type Venion COT229	Path D\Sege\	Ved Prod (2010) Subset CV122/Wet de	× 	<u>.</u>		
rch Si C G	age X3 com component hoose the co	nponents Int choice component to be o Family REPORT	Pagada privace configured Type Venion COT 229	Path D\Sayet	Ved Rec (19 1000) Solar Child Parks Child Parks Chil	× 			

In the configuration, enter the port you wish to use. I normally change from the default 1890 to 51890. Also enter Service runtime user as "x3run" and password.

Although optional, I will also change some of the new parameters to take advantage of new functionality which are displayed in "Expert mode"

E Configuration for 'DEFAULT' profile Otto	ie)
Sage XJ Pitt serve on xJv12	mode 👌 🚺
General settings Parameter Value	
- About Vastable coefficient for size of the shared memory 40	
Post server Pres before deleting print jub statutes (ninutes) 200	
The burner were the office detering print job statuces with errors (minutes) 2000	
- Management of requests for print lobs Time before delation print request (imputes) 1440	
- Print processes management Max number concurrent printing processes 5	
- Pint logs test print processes ribmin proc 1	
Time before killing processus (ninutes) 20	
Max successive jobs by a process 10	
Server Activity Log on	(
Maximum size of Activity log file 2000000	
Number of files activity log 3	

I want to keep all print jobs (printed OK or in error) for review for 2 days and have also enabled Server Activity Log.

Click "Configuration" then "Yes" to continue

aramater	Value	
DetError	vaue company and compa	
Hard D / Did Security applies	31030	
User operand / Dist Server apping	autori COVDT Reconfidence Vice and Annual Vice	
Activate ODBC User datasource	off interesting we have a second se	
	Confirm	
	Confirm configuration of profile DEFAULT ?	

Once completed successfully, exit the X3 console

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Final setup and testing

Launch Sage X3 and login as ADMIN user



Configure X3 Solution

Navigate to Administration, Administration, Endpoints, X3 solutions From the "Actions" pick "New X3 Solutions"

Enter the required information:

Code = X3V12 Description = X3 V12 Solution Name = X3V12 Application, from drop down list File protocol = "Sage X3 protocol (SADFSQ)" Main server host = x3v12 Main server port = 20100 (Defaulted)

You should see "Synchronisation with solution.json done" message

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			auper automissi acce auper automissi acce age		
6 Synchronization with solution json done ×					Default -
X3 solution					Actions :
Information File protocol Main server	Runtimes Batch server BO server Services Endpoints				IB TH
Information					^ ^
Code *	Description *	Solution name *	Application .		
X3V12	X3 V12	X3V12	X3 ERP	Q	
Code	Friendly name	The X3 solution name			
File protocol Static files protocol Static Stap X3 protocol (SADFSQ) HTTP protocol (Apachte HTTP server) Used to deliver the Sage X1 resources for diask; pages					^
Main server					^
Main server host *	Main server port *				
x3v12	20100				
Physical server name or IP address for main application server	The main application server port				

Runtimes									^
Enable application cluster Enabling this option requires a dedicated pre Sage X3 runtimes	lmi								
Server host	Server port	Tags	Tag exclusive	Ban timeout	Black listed	t	Auto config	Disabled	
1 X3V12		20100 MAIN			5		<b>v</b>		
X3 runtimes									
Parallel jobs by runtime during update		Certificate							
	0			Q					
Parallel jobs by runtime during update		Certificate used for authentication on these servers							
Batch server									^
Batch server									
X3 batch controller									
BO server									^
BO server		Q							
Configure Business Objects server									

# Check the runtime appears OK

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	ouge
Services Sage X3 Goud Development Platform URL Sage X3 Services URL SQL service MongoOB service	^
Endpoints	^
Associated andpoints	

Click "Save" from the Actions button

Logout and login again Set user language to English (United Kingdom)

Perform personalization and menu initialization

Navigate to Administration, Administration, Endpoints, Endpoints Edit the X3V12_X3 entry

				/		· · • · j															
Sog		X3	m											Su	uper administrator	Super administr	ator X3V12/X	0	☆ -	۲	
	dmini	istration	> Administration > Endp	pints																	
Endpo	ints	s																		Acti	ons
																			4		
		Name	Description	Application	X3 solu	ti Server fol.	Reference fo	. Nat	Parent fol	Use local	database se	Database dr	Database	Database	Database n	Historical fol	Ignore X3 Rig	Enable	SQL config	gura	
		T	т	T	QT	QT	QT	QT	T	т		T	- T	т	т	۲ 🗌	т 🗌	T			
~ /	÷	syracuse	Syracuse administration	Syracuse Collaboration	1						~	Mongodb	x3v12	2701	7						
~ /	Ŧ	X3V12_X3	X3V12 / X3	X3 ERP	1 X3V12	I X3										×					
c																				>	

From the Actions, select "Customisations and menus initialization from X3 folder" Select "Yes" on the information message

00go X3 ==			Super administrator Super administrator X3V12/	
<u>All</u> > <u>Administration</u> > <u>Administration</u>	> Endpoints			Default -
Endpoint xavız/xa		Customisations and Menus initialisation ×		Actions 1
Information Location Serve	r parameters Services Administration	-		28 . 14
Information		Caution : This action will reset the menus and personalisations with original factory values it must be done only after the execution of a	^	- Seve
Name +	Description +	new Application component setup. Otherwise you could overwrite the chapter does by the standard underse that was could have		Detail
		applied.		Endpaints
Location			^	Set as default endpoint
Application = X3 ERP	Q	Yes No		Check server settings
				Check help hase URL
Server parameters			^	Update menu profile mappings
X3V12	Q X3	Q [	Ø	Update profession code mappings
X3 solution settings	on Help Base URL			Customisations and Menus initial
Historical folder				
Services	521 service		^	
Administration			^	
Groups				
Super administrators Q 🔒 🕴	<b>4</b>			
Manu profiles to roles mapping Roles	to profession codes mapping			
		^		
*	100 %			
Job title	Customisations and Menus initialisation			
Phase	Completed			
Start date	28/11/2023			
Start time	16:33			
Elapsed seconds	104			
Remaining seconds	0			
<ul> <li>Import done, 652</li> <li>object(s) were modi</li> <li>Import file 4-erp-</li> <li>Import done, 103</li> <li>object(c) were modi</li> </ul>	7 object(s) were created, 0 fied, 0 errors authoring.json object(s) were created, 218 field 0 answere			
Import file 2-erro	homenages lean			
mport his 3-erp-	nomepages.json V			

Log out of X3

Installation of Supervisor component

Log back in as ADMIN user, make sure the X3 endpoint is selected

Navigate to Parameters, Users, Users

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•	wessage a information (2)	>
The	supervisor will complete its installation. This e a few minutes	operation may

Click OK to continue Once completed, logout again

Restart the Windows Server to be sure everything starts afresh.

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# Import SEED Folder

Download SEED ISO image for V12 P34 and mount the iso file "x3-seed-12.0.34.iso" Extract ZIP file "x3-seed-12.0.34.zip" to "D:\sage\X3V12\folders\"



Once unzip has completed, launch X3 console Select "Folders" tab



Select "Import" then click OK to launch the import



Once the import has completed, check the folder details look OK. The X3 Console log file will be located in "C:\Users\x3admin\AppData\Roaming\Sage\Console\traces\gtrace.tra" by default. (As I am doing the install as "x3admin" user)

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Configuration				
Folder impor				
<ul> <li>Operation completed.</li> </ul>				
Hele				Details >> Close
Progression Parameter Tr				
2)21112223 15:33 1 40 2)2112223 15:33 14 2)2112223 15:35 14 2)211223 15	Sind should be a set of the set o	10, HEL (MILCHOR, South Johnstowster General 11, 405 11, 405 12, 405	TRULL_NCTON PCCONTROL	"MAL SEED
21112021176141 (MO 20112021176141 (MO 20112021176141 (MO 20112021176141 (MO 20112021176141 (MO 20112021176141 (MO 20112021176141 (MO 20112021176141 (MO 20112021176141 (MO 20112021176141 (MO 20112021176144 (MO 20112021176144 (MO 20112021176144 (MO 20112021176144 (MO 20112021176144 (MO 20112021176144 (MO 2011202117644 (MO 2011202117642 (MO 20112021)7642 (MO 2011202117642 (MO 20112021)7642 (MO 20112010)7642 (MO 20112001)7642	We are sense in the same (Labba Anciellingue Cabability	sef-starCut)		
				,

Folder	Origin	Update version	Release	Update	Languages	
SEED		2023 R2 (12.0.34)	R090.034.126	28/10/2023	FRA:ENG:ITA:POR:SPA:BRI:GER:POL:CHI:ARB:AUS	
X3		2023 R2 (12.0.34)	R090.034.126	28/10/2023	FRA;ENG;BRI;CHI;GER;ITA;POL;POR;SPA;ARB	

# Create SEED Endpoint in Syracuse

#### Navigate to Administration, Administration, Endpoints, Endpoints Actions, New Endpoint

00ge X3 III			Super administrator Super administrator X3V12/X3 (?) 💢 🤟 🤅	e)
All > Administration > Administration > Endpoint	5			Defas
Endpoint				Action
Information Location Server parameters	s Services Administration			18
Information				. í
Name •	Description *			
SEED	SEED	1		
Location Application *			,	
X3 ERP	C.			
Server parameters	Prove felder a	Performant follow	,	
X3 solution •	Server tolder •	Naterence toxder	0 Ulstanical fables	
X3 solution settings	4		Is this endpoint connected to X3 his	
Туре	Help Base URL			
Test • Enable test r	robot			
Services			,	
Sage X3 Services URL	SQL service			
	~			
Administration				
Groups				
Super administrators 🔍 😫 🔍				
Menu profiles to roles mapping Roles to profession co	odes mapping			
• 2 •	/			

Save the record

Logout and login again. Select SEED folder and confirm looks OK

Setup SEED folder in X3 Console for Print Server In X3 console, select Sage X3 Print Server Select Print Server publications Add solution

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Sage X3 Configuration Console - CFG.2.5	8.0.14 - DEBUG						
kome New Pirit server Delete Pirit ser	wer Add server profile Re	nove terver profile Configuration	Services Plint server public	ations			
Solutions	늘 Add solution 🛛 🏠 Apply (	ublication 🛛 🗙 Unpublish solution	💈 Refresh 🛛 😢 Help	Generate script publish	solutions Generate	cript add solution	
Sage X3 Pirit Server							
🕷 🛱 🎯 🞜 😯	Publicatio	ns					
∰ XIVI2 en kävi2 (D : XIVI2) ⊢Ç: DEFAULT	Solution identifier	Solution label	Published folders	Locked	Profile	Nub-main runtimes	
				List of Solutions	Solutions		×
				Pease to	lect the solution to publish i	n the PrintServer profile	
				CXIV12	X3V12		
				< Instance/	hofile name: DEFAULT		~
				Generate script			Ok Cancel

Click OK to continue

Select SEED folder and "Apply publication"

Publicati	ons				
Solution identifier	Soldion label X3V12	Published folders	Looked No	Profile DEFAULT	Muti-main surtimes No

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### Apply any mandatory patches

Check the ISO "Patches" directory. E.g. E:\X3Installs\Patch

Apply any patches in this directory.

Login to X3 as ADMIN user and connect to X3 folder Copy "patches" directory from ISO to "D:\Sage\X3V12\folders\X3\PATCH" Navigate to Administration, Utilities, Update, Updates Apply XSDFILES-UBL21.zip ****** This is not a patch file!! Skipping this for now.

(Something to do with E-Invoicing I think)

Navigate to Development, Utilities, Patches, Patch Integration Apply all the SX_*.dat files

** There is no documentation on these files, so skipping until I have got clarifications.

NOTE: the documentation (<u>https://online-help.sageerpx3.com/erp/12/public/getting-started_sage-erp-x3-installation-procedure.html</u> "Applying the list of patches" section and also in the "VersionInformationNote-X3-ENG-12.0.34.html") says only to apply ZIP file in the "patch" directory using "Updates" function, however with patch 34 there is a ZIP file and also 8x *.dat patch files which need to be applied with the "Patch integration" function. See above highlighted notes, I am skipping this for now.



# Batch Server

Create new user to process batch jobs "batch". More or less a copy of ADMIN user. Copy user to all folders.

Navigate to Administration, Administration, Endpoints, Batch server Edit as needed, then save the change.

314		1011 301						
All > Administration > Administratio	n > Endpoints							De
X3 batch controller your								
								Actio
Information Activity log X3	execution setting Activity s	etting Runtimes						1
Information								^
Code	Auto start	Status	Administration session					
X3V12	<u> </u>	Running	76ea0023f957					
Batch controller code is identical to X3 solution	on code Dennes ir the ba	ton co	Look contrast	at				
2023-11-29T10:16:04.199Z	anopped as		2023-11-291	n 10:26:04.215Z				
Host	Process name		Process Id					
x3v12	NO			394	0			
Activity log								^
Batch controller logs								
Date		Severity		Message	1			
2023-11-29/10/16/38/8942		1/10		The batr	Instration X3 session with PIU 4636 has t	seen created on X3V1222/100.		
2023-11-29710:16:04.2142		info		The bat	h server XIV12 has been started			
¢		_						>
Queries logs								
Number Tesk ands	Falder	Etatus	Eterted at	End at Massam	Dustine	VI Bid Teel	tan VI session	
No data to display	1 Charles	olatos	oun teo at	Children Propage	Number of the second	10110	ing house	
X3 execution setting								
NR - A R -								^
AS Solution		X3 runtime tags		Administrative endpoint				^
<u>X3V12</u>		X3 runtime tags		Administrative endpoint X3V12 / X3		I		^
X3912 X3 solution and batch controller cannot be un	linked	X3 runtime tags	gs can be used to select your pref	Administrative endpoint X3V12 / X3 Endpoint corresponding to mothe Groups	r folder used for administrative tasks	I		^
AS Solution X3V12 X3 solution and batch controller cannot be un User SatC1	tinked	X3 runtime tags Comma-separated to Role	gs can be used to select your pref	Administrative endpoint X(V12/X) erred X Endpoint corresponding to mothe Cocom Endpoint corresponding to mothe	r földer used för administrative tasks preference UNUMBER KINAKIem)	I	1	^
As solution <u>XIV12</u> IS solution and batch controller cannot be un User Setch Betch Server Ubscurde for edentitionation tasks	tinked	X3 runtime tags Comma-separated to Role Super administrat Role used for admini	gs can be used to select your pref DE tractive tasks	Administrative endpoint XXV12/X3 Endpoint corresponding to mothe Endpoint corresponding to mothe Endpoint Langur Langur	r folder used for administrative tasks preference sturned unsolem) ge used for administrative tasks	I	I	^
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# Web Services

Create new user to launch SOAP pools "webservices". More or less a copy of ADMIN user. Copy user to all folders.

Connect to SEED folder.

Create/Startup Web Pool.

Navigate to Administration, Administration, Web services, Classic SOAP pools configuration

Act	ions, N	lew SOAl	P pool						
All > Administration > Administration > W	eb services		•						Defini
Pool configuration:									Action
Information X3 connection Chann	els								18
Information									^
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									- A - 1
<ul> <li>Host</li> <li>Part</li> </ul>	Process	PID Status	User login	Locale	Last action	Action By	WS queue	WS count	
No data to display									

Save the record Actions, Start/Update to startup the web pool

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For testing purposes later on I will use the BPC object, so will publish this object now Navigate to Development, Script dictionary, Scripts, Web services Select the BPC publication

Save, then Publish. Check the publication date/time is today

All > Development > Script dictionary > Scripts	Defa
₹ ↑ ↓ <u>¥ Web services</u>	Publication XML view XSD view :
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Definition Object	^
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### Printer setup

Check/change/delete destinations for SEED folder as per your own requirements. Navigate to Parameters, Destinations, Destinations

- For each of the existing destinations, resave the record as print servers are missing.
- Add new destination called PRINT as output type "Printer"

All > Pa	arameters > Destinations		Defau
Ť Ť ·	+ ± Destinations		Сору
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•			× * ^
Code *	Description         Short title           T         Q, I         Printer         PRINT		
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🖌 Ac	ctive Q I Printer *	1	
Server			
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HP lat	iser LPT Q. E		Normal *
Number	r of copies * 1 Collated copies		

### Setup SSL port 443

Generate the required SSL certificates by executing script

"D:\SageSupport\mzCertificates\SyracuseTLS\mzSyracuse_TLS_WildCard.cmd" (Available to Sage Business Partners via GitHub)

Navigate to Administration, Administration, Certificates, Certificates of Certification Authorities Actions, New CA certificate Add the root and inter certificates

•							
1	Administration > Administration > Certificates						0
	Certificate of Certification Authority						Acti
	Information Distinctive names						
	Information						^
	Name	Description	internal	CA Certificate	Valid from	Valid until	
	testcaroot	Test CA root	×		29/11/2023 10:37	28/11/2024 10:37	
	Distinctive names						^
	Distinctive name	Issuer distinctive name					
	C=GB, ST=Berkshine, L=Winnersh, O=Sage UK Ltd, OU= UK, CN=TestRootCA	C=GB, ST=Berkshire, L=Winnersh, O=Sage UK Ltd, OU= UK, CN=TestRootCA					

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Act

All > Administration > Administration > Certificates							Defa
Certificate of Certification Authority						A	tion
Information Distinctive names							I
Information							
Name	Description	Internal	CA Certificate	Valid from	Valid until		
testinterca	Test intermediate CA	×		29/11/2023 10:37	28/11/2024 10	37	
Distinctive names							
Distinctive issue	Issuer distinctive news						
C=GB, ST=Berkshine, L=Winnersh, O=Sage UK Ltd, OU= UK, CN=TestinterCA	C=GB. ST=Berkshire, L=Winnersh, O=Sage UK.Ltd, OU= UK, CN=TestRootCA						

# Navigate to Administration, Administration, Certificates, Certificates Actions, New certificate

All > Administration > Administration > Certificates				
Certificate widearc2023			Action	
Information Private key Context			18	
Information			^	
Name	Description	Internal Certificate Valid from Valid units		
wildcard2023	wildcard certificate 2023-24	W 29/11/2023 10:37 28/11/2024 10:37		
Private key			^	
Private key exists Private key	Passphrase	Distinction come C+G8_ST-Berkshire, L+Winnersh, D+Sage UK LId, CU+ UK, CN+* example.com UK, CN+*Enstremerck		
Context			~	
CA Certificates				
manager I manager I				
Server				
Synacuse hypets				

NOTE: The "Server" field should be left blank, as it's a wildcard certificate

#### Navigate to Administration, Administration, Servers, Hosts Edit the "X3V12" host Add new line for port 443 and configure as SSI

	on caro ror p					
All > Administra	ation > Administration > Servers					
Host x3V12						
Information	Configuration					
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Save the change Logout Restart Syracuse service

# Connect to URL https://localhost.example.com/

Ignore the security risk messages



Make sure you can login OK

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# Additional installations

# Installation of Elastic Search 8.11

**NOTES:** Elastic Search is optional from 2022 R4. Elastic Search 8 is supported since 2023 R2 and has a new configuration method.

Documentation

https://online-help.sageerpx3.com/erp/12/public/prerequisites_elastic-search.html https://www.elastic.co/downloads/elasticsearch https://www.elastic.co/quide/en/elasticsearch/reference/current/index.html

Additional notes when upgrading ElasticSearch (<u>https://gb-</u> kb.sage.com/portal/app/portlets/results/viewsolution.jsp?solutionid=225924850099424)

I decided to use the ZIP file method.

Unzip "D:\Software\ElasticSearch\elasticsearch-8.11.1-windows-x86_64.zip" into "D:\" which writes the extracted files into "D:\elasticsearch-8.11.1"



Execute the script using the "Run as administrator" option Check the service is created, but don't start yet

<b>Q</b> Services								
File Action View Help								
Services (Local)	Name	Description	Status	Startup Type	Log On As			
	ElasticSearch_8.11.1	ElasticSearch_8.11.1		Automatic	Local System			
	Character State St	The Embedded Mode service enables scenarios related to Background Applications. Disabling this service will prevent Backg		Manual (Trigger Start)	Local System			
	Contract Contract (Contract Contract Co	Provides the core file encryption technology used to store encrypted files on NTFS file system volumes. If this service is stopp		Manual (Trigger Start)	Local System			

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As I am running a single node configuration as a TEST server, I do not need to make any changes to the Elastic Search configuration. For LIVE or multi-node instances, additional configuration will be required.

Start the ElasticSearch service

Re-generate password for "elastic" user

I have setup my script so I can run "elasticsearch-reset-password" easily



#### Configure JVM heap sizes, as discussed in

<u>https://www.elastic.co/guide/en/elasticsearch/reference/8.11/important-settings.html#heap-size-settings</u> as the default is 4GB on my Windows Server

Execute "elasticsearch-service.bat manager" CMD after adjusting the script again.

In the "Java" tab, set the "Initial memory pool" and "Maximum memory pool" as needed:



You must also set the parameters in "jvm.options" located in directory "D:\elasticsearch-8.11.1\config"

vm.op	tens 🖬
	D:\elasticsearch=8.11.11\config\jvm.options
	## IMPORTANT: JVM heap size
	***************************************
8	## The heap size is automatically configured by Elasticsearch
4	## based on the available memory in your system and the roles
	## each node is configured to fulfill. If specifying heap is
6	<pre>## required, it should be done through a file in jvm.options.d,</pre>
	## which should be named with .options suffix, and the min and
1	## max should be set to the same value. For example, to set the
1	## heap to 4 GB, create a new file in the jvm.options.d
	## directory containing these lines:
	**
2.00	## -Xms4g
3	## -Xmx4g
6	-Xm#256m
5	-Xnx254m
6	**
	## See https://www.elastic.co/guide/en/elasticsearch/reference/8.11/heap-size.html
41	## for more information
61	**

Restart the Elastic Search service Check the elasticsearch.log to confirm the new parameters have been picked up

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Check Elastic Search is responding with the URL <u>http://localhost:9200</u> Enter username "elastic" and appropriate password

Secure using <u>https://www.elastic.co/guide/en/elasticsearch/reference/current/manually-</u>configure-security.html

#### Setup basic security I used the following script to generate the required certificates. REM Set the following variables to suit your environment set "mzNewServiceName=ElasticSearch 8.11.1" set "ES HOME=D:\ElasticSearch-8.11.1" set "ES JAVA HOME=%ES HOME%\jdk" set "ES PATH CONF=%ES HOME%\config" set "PATH=%ES HOME%\bin;%PATH%" REM REM Do the work REM rem goto createServerCert rem goto moveFile rem goto clientTLS :createCA REM Create CA call elasticsearch-certutil ca :createServerCert REM Create server certificate for inter-cluster validation call elasticsearch-certutil cert -- ca D:\elasticsearch-8.11.1\elasticstack-ca.p12 :moveFile robocopy D:\elasticsearch-8.11.1 %ES PATH CONF% elasticcertificates.p12 /mov /r:2 /w:5 /v REM :clientTLS REM Create certificate for client connections elasticsearch-certutil http :end Pause

#### Update elasticsearch.yml

cluster.name: cluster1 node.name: node-1 # TLS setup xpack.security.transport.ssl.enabled: true xpack.security.transport.ssl.verification_mode: certificate xpack.security.transport.ssl.client_authentication: required xpack.security.transport.ssl.keystore.path: elastic-certificates.p12 xpack.security.transport.ssl.truststore.path: elastic-certificates.p12

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At this point, can restart Elastic Search service and test can still connect to the <u>http://localhost:9200/</u> URL.

#### Setup secured HTTPS for all traffic

Generate the certificate for the client connections using the above script. Update elasticsearch.yml to add the following lines:

xpack.security.http.ssl.enabled: true

xpack.security.http.ssl.keystore.path: "http.p12"

Copy "http.p12" to the "%ES_HOME%\config" directory

Restart Elastic Search service and test can connect to the <u>https://localhost:9200/</u> URL. (Ignore the "Security risk" message due to "Unknown issuer")



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# Configure X3 for Elastic Search

First I need to extract the CA certificate from D:\elasticsearch-8.11.1\elastic-stack-ca.p12 and load into X3.

- Open the elastic-stack-ca.p12 file and navigate to the certificate, then export as Base-64 encoded file
- Navigate to Administration, Administration, Certificates, Certificates of Certification Authorities
- Create new CA certificate for the Elastic Search CA

tificate of Certification Authority	,				
information Distinctive names					
nformation					
Name	Description	Internal	CA Certificate	Valid from	Valid until
elasticca	Elastic Search CA	×		29/11/2023 15:28	28/11/2026 15:28
Distinctive names					
Distinctive name	issuer distinctive same				
N-Elastic Certificate Tool Autopenerated CA	Chi-Elastic Certificate Tool Autorenerated CA				

#### Navigate to Administration, Usage, Search, Search server settings

There is a default setup assuming Elastic Search version 8 is running on the localhost using port 9200 and with no authentication or TLS enabled... so I need to change these settings.

All + Admenditation + Useen + Search Search settings		Dena Action
Version Connection TLL sutherstitution User authentication Setting		
Version Version 8 *		^
Connection Consectionset Next + Conspendix server + [Incellens	Pert + Pany Q Solution (Constraints) Pert - Q Solution (Constraints) Pert - Rest Pert - Re	^
TLS authentication Coortification feasibilitation Control of the section of the s	q	<u>م</u>
User authentication Authentication User *  [Soc *]	Present * Biller Cardina suba	^
Setting Index same prefix ( 3000)		^



# Update Elastic Search Index

Navigate to Administration, Usage, Search, Search Index Management Check the "Delete indexes before update" option (as this is the first run)



#### Actions, Update Index

Once completed successfully, shutdown Windows and take a final backup before testing commences.



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# Conclusion

This "Build diary" document shows the steps taken to install a new Windows server for testing the latest version of Sage X3, along with any supporting technologies required. This setup is only suitable for TEST instances.

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