SIMS Technical Roadmap

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Owner(s):   School Apps

Lancashire County Council

EDUCATION DIGITAL SERVICES

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1 Introduction

The purpose of this guide is to provide customers with a detailed overview of any software and hardware infrastructure they might need to run the SIMS Product suite. It has been developed in line with customer feedback to enable Local Authorities, Support Teams, Schools and Academies to effectively plan their future support of SIMS.

This document is based on information provided by ESS in their Annual SIMS Technical Roadmap and has been reviewed by them in October 2023. It provides schools with an overview of what changes we expect in 2024 and upcoming months.
Please Note: LCC Education Digital Services is not responsible for the SIMS Technical Roadmap, and this could be subject to change at any time by ESS however, we hope that this document helps you understand and prepare for up-and-coming changes.

If you have any questions or need support from your LCC Education Digital Services SIMS support team, please don't hesitate to contact us.

Date	Changes Made	Updated by	Next planned review date
24/06/2024	• Interim update to extend support for SOLUS version 3.12.72	T Jones	Autumn 2024
10/10/2023	• Inclusion of support for Windows Server 2022 • Inclusion of support for SQL Server 2022 • Inclusion of support for MS Office 2021 LTSC / O365	T Jones	
19/12/2022	• Inclusion of support for SQL2019 • Recommendations around SQLExpress	T Jones	Summer 2023
13/06/2022	• .NET Framework 4.7.2 and SIMS7 • Removal of IE 11 support • Windows 11 Workstation Only for SIMS7 • SQL2016 and PX • Discover using SQL Compact Edition 3.5	P Featherstone	-
15/11/2021	Clarification on SQL Versions	P Featherstone	Spring 2022
01/11/2021	Simplifying .NET Framework, Office, and SQL versions. Addition of SIMS Connected details.	P Featherstone	Spring 2022

2 What support is ending in the next 12 months?

2.1 Roadmap Key Code

■ (maroon)	-	Not supported by ESS
■ (orange)	-	Support provided only where the additional conditions are met
■ (green)	-	Supported by ESS

2.2 What does the red 'Not supported by ESS' indicator mean?

'Not supported by ESS' means that they are either no longer testing their software on the stated platform or have not finished testing the software on the stated platform. This does not necessarily mean that the software will not work on the stated platform, but it does mean that ESS will be unable to support any issue raised by customers. For the most robust SIMS experience, ESS advise all customers to keep to a supported platform.
LCC Education Digital Services will only support schools that are on supported software.

2.3 What does the yellow indicator mean?

Technologies marked as yellow are either considerations for future support or considerations for retirement of a technology. Typically, where a new technology is supported, an older version of the technology is retired so that ESS is testing the same number of overall technologies and platform scenarios.

3 A Typical School

The following information is provided to run SIMS and FMS in most typical schools. These components on the server would include SQL, Document Management Server, SIMS Services Manager (SSM), InTouch, and SOLUS3. Separate sections for other products such as TeacherApp are covered later in this document. If you are unsure about any of these specifications, then please contact the Education Digital Services Service Desk.

3.1 Minimum Hardware Specification Guidance

Component	Requirement
SIMS Server	
Computer and Processor	Quad Core processor or higher recommended for optimum performance. A minimum of four v-cores should be assigned to virtual servers.
Memory (minimum recommended)	8GB or higher (16GB+ recommended for optimum performance in Secondary schools). If a virtual server is in use, this should be statically assigned memory, not dynamically.
Disk space guidance #	We appreciate that each school will have different server configurations and setups, so we feel it's best to advise on the disk requirements for each separate element that is needed to run our software. It will then be for the server administrator to decide on what requirements are needed for their setup given the following advice: **SQL Server Requirement** We estimate as a minimum that you should allow 150Gb for all SQL databases required for your setup. **File Share Requirement** Please allow 10-20GB for the SIMS Applications and Setups folder. **SOLUS3 Repository** There is an ability to clear down the SOLUS3 repository so sizes in use in schools will vary, we advise customers should allow for 10Gb of storage space **Docstorage Requirement** For the Docstorage drive, this will vary so greatly by customer, we therefore advise schools should consider 50Gb as minimum. **General Guidance** If a virtual server is in use, then the virtual hard drive files should be statically sized.
Drive	We no longer send software out on physical media, however, ISO mounting software if not supported by server OS is required for software installation.
Display	1280x720 or higher monitor resolution.
Backup of whole system required?	Yes. You are reminded that it is critical that backups are moved to an alternative media on a daily basis, i.e. that one is kept in a physically separate place from the server that is backed up. Customers need to ensure that they have a disaster recovery plan (DRP). This includes where they will source a replacement server and what they will do whilst the system is down. The DRP is only worthwhile if, on a termly basis, the backups are restored to another machine and proven to work. SIMS data backups stored offsite must be stored in an encrypted format. ESS recommends Redstor Backup Professional software for the backup of SIMS. SIMS and Backup Professional are fully integrated to provide seamless, offsite backup for SIMS data. If using Redstor Backup Professional to backup and protect SIMS, you will need to ensure that you have enough disk space available on the server or workstation. The free space available on the device needs to be 150% of the amount of SIMS data (i.e. if you have 1GB of SIMS data, you will need 1.5GB of free disk space). If using other solutions by other providers, it is essential that you work with those service providers to ensure the backups are GDPR compliant.
Other information	It is not recommended that servers be used normally as workstations except in small schools. Non-dedicated servers are unlikely to be suitable with more than five concurrent users of SIMS. ESS recommends the purchase of a dedicated database server (not used for other domain roles in the school) where there are 20 or more concurrent users, or where the network server is of a low specification. A whole school network will almost certainly require a dedicated database server. The use of Lesson Monitor and/or Assessment Manager in each classroom usually means that a dedicated database server running a Full SQL Server edition of Standard or higher is required. Internet access is required. SOLUS details can be found in KB0046733.
SIMS Workstation	
Computer and processor	Quad Core 2.4GHz processor or higher recommended for optimum performance.
Memory (minimum recommended)	8Gb or higher for main SIMS machines. 4GB is acceptable for a casual SIMS use machine.
Disk space guidance #	Workstations will need 1.5GB free including 500MB on system partition for third-party components in the Windows directory. Workstations using FMS should allow for an additional 150MB.
Display	1280x720 (1280x1024 or higher for optimum experience).
Operating system and software	Operating System — 32-bit and 64-bit versions of Windows 10 Pro. The PC will require a minimum of Microsoft .NET Framework 4.7.2 to be present. From the Autumn 2022 release of SIMS7, if the minimum .NET Framework of 4.7.2 is not met, SIMS will not load and the user will be prompted to install it as required. Software — Microsoft Office 2016 or later. Adobe Acrobat Standard and Adobe Acrobat Pro, At present we do not support Adobe Document Cloud.
Other	Internet access is required.

Disk space guidance does not include the generic 15-25% hard drive space to be free for the general and smooth running of servers/workstations.

Please note: For a SIMS Workstation, Education Digital Services recommends 16Gb RAM reflecting the additional requirements of Microsoft SQL 2019 and additional processes.

4 Detailed Roadmap

4.1 SIMS Software Support

System	Spring 2023	Summer 2023	Autumn 2023	Spring 2024	Summer 2024	Autumn 2024	Additional Notes
Server Operation System							
Windows Server 2012	Green	Green	Magenta	Magenta	Magenta	Magenta	Microsoft Extended Support End Date: 10/10/2023.
Windows Server 2012 R2	Green	Green	Magenta	Magenta	Magenta	Magenta	ESS will only support Windows Server where the Desktop Experience (GUI) is installed. We do not support servers where only the Core installation has been carried out.
Windows Server 2016	Green	Green	Green	Green	Green	Green	Microsoft Extended Support End Date: 12/01/2027.
Windows Server 2019	Green	Green	Green	Green	Green	Green	Microsoft Extended Support End Date: 09/01/2029.
Windows Server 2022	Magenta	Magenta	Magenta	Yellow	Green	Green	We are aware that some schools have moved to Server 2022 already and in those instances we will support through our Escalations team where issues arise from Spring 2024.
Workstation Operation System							
Windows 10 Pro (32 / 64 bit)	Green	Green	Green	Green	Green	Green	Microsoft Support End Date 14/10/2025.
Windows 11	Green	Green	Green	Green	Green	Green	Windows 11 cannot install our supported versions of SQL i.e. SQL2012, SQL2014, and SQL2016.
SOLUS3							
SOLUS 3.12.59	Green	Green	Magenta	Magenta	Magenta	Magenta	
SOLUS 3.12.72	Green	Green	Green	Green	Green	Green	Support extended to include Autumn 24 release
SOLUS 3.12.	Magenta	Magenta	Magenta	Green	Green	Green	Final version number pending release
Microsoft Office							
Office 2013 SP1	Magenta	Magenta	Magenta	Magenta	Magenta	Magenta	ESS recognises that a local installation of Office applications under the O365 license takes place in schools. While our testing does not cover this scenario specifically, we continue to monitor any difficulties schools may raise via the Service Desk.
Office 2016	Green	Green	Green	Green	Green	Green	
Office 2019	Green	Green	Green	Green	Green	Green	
Office 2021 LTSC	Magenta	Magenta	Magenta	Green	Green	Green	Office 2021 LTSC supported from Spring 2024 where the application is locally installed.
Office 365	Magenta	Magenta	Magenta	Yellow	Yellow	Yellow	Integration with O365 is supported provided the applications are locally installed.

**We have been made aware of a compatibility issue surrounding File Collaboration in One Drive affecting the reporting output from SIMS. This is due to be resolved in the Spring 2024 release.

4.2   SIMS Next Gen

It is critical that schools manage their users in a secure way. This provides advice to schools on best practices for authentication and security for Next Gen.

It is important that SIMS Next Gen users are managed in a safe and secure way. Identity and authentication is the foundation of security, and needs to be robust and well managed.

Check your SIMS server meets the minimum hardware and software requirements

Please ensure that your SIMS server meets our minimum requirements, as summarised in the table below:

Computer and processor	A Quad Core 2.4GHz processor or higher is recommended for optimum performance.
Memory (RAM)	8Gb minimum or higher is recommended for optimum performance.
Disk space guidance	A minimum of 5Gb free disk space on the System partition (C: drive). The data drive should have at least 25% free disk space to allow for smooth upgrades and backups.
SQL	Minimum SQL Version 2016. Maximum SQL Version 2022.
Other requirements	It is not recommended that servers are used as workstations except in small schools. Non-dedicated servers are unlikely to be suitable with more than five concurrent users of SIMS. ESS recommends the purchase of a dedicated database server (not used for other domain roles in the school) where there are 20 or more concurrent users, or where the network server is of a low specification. A whole school network will almost certainly require a dedicated database server.
Ongoing Use	The server or workstation where SIMS Services Manager is installed should be kept running at all times, except for scheduled maintenance. Where this computer needs to be shut down for an extended holiday period, schools should ensure it is switched on at least 24 hours before the school term resumes.

Recommendations and considerations

We propose the following recommendations and considerations:

- **All users must be provided with named individual user accounts**; shared accounts must be prohibited.
- Single-Sign-On integration with the organisational identity provider is highly recommended (e.g. Microsoft, Google, et al).
- **Multi-Factor-Authentication (MFA) should be enabled for all users.**
- "Passwordless" technologies should be adopted where possible.
- **Any passwords must meet sufficient security standards**, e.g.:
  - Contain at least 10 alphanumeric characters.
  - Contain both upper and lower case letters.
  - Contain at least one number (e.g., **0-9**).
  - Contain at least one special character (e.g., **! $ % ^ & * ( ) _ + | ~ - = \ ` { } [ ] : " ; ' < > ? , /**).
- Passphrases should be used rather than passwords; passphrases consist of multiple words or a sentence.
- **Passwords must never be written down or shared.**
- All systems with distinct accounts must have different passwords; i.e., **do not use the same password across several systems.**
- **Make sure to operate an effective onboarding-offboarding process** to safely manage access.
- Do not use personal accounts for corporate systems, and vice-versa.
- **Use of a password manager is highly recommended** (this should be approved and managed by your organisation).
- **Subscribe to some form of breach notification service**, such as HaveIBeenPwned.

Best practices for passwords

Never reveal your password, whether verbally, in email, chat messaging, or any other communication. There should be no reason whatsoever to share your password. Passwords are confidential information and must be treated as such. Nobody should ask for your password.

If the security of an account is ever in question, the password must be reset as soon as possible, and audit logs reviewed to confirm or deny malicious activity. When resetting an account, consider any account recovery channels that might have been tampered with, and terminate any existing logon sessions where possible.

NOTE: SIMS-ID is protected by best-in-class account takeover technologies, unique to the industry. We take exhaustive measures to protect your accounts from bad actors.

Ultimately, customers (end users) are responsible for the security of their own accounts. This guidance will help to ensure that only authorised individuals gain access to information systems.

4.3 SIMS SQL Support

System	Spring 2023	Summer 2023	Autumn 2023	Spring 2024	Summer 2024	Autumn 2024	Additional Notes
							Not supported by ESS
							Support provided only where the additional conditions are met
							Supported by ESS
SQL Server Details							
SQL Server 2012 (SP4) (KB4018073) - 11.0.7001.0							SP4 Support End Date 12/07/2022. SP4 Extended Security Update End Date 08/07/2025 (not applicable to Express Versions)
SQL Server 2014 (SP3) (KB4583462) - 12.0.6433.1							Microsoft Extended Support End Date: 09/07/2024 – Spring 2024 Release of SIMS **is likely** to be the last version of SIMS supported on this SQL Customers are recommended to set the SIMS database to use compatibility mode 110 for maximum performance
SQL Server 2016 (SP3) (KB5003279) - 13.0.6300.2							Microsoft Extended Support End Date: 14/07/2026 Customers are recommended to set the SIMS database to use compatibility mode 110 for maximum performance
SQL Server 2017							Although available, schools are recommended to install SQL2016 and set the SIMS database to compatibility level 110 for SQL2012
SQL Server 2019 (RTM-CU16) – 15.0.4223.1							Microsoft Extended Support End Date: 8/1/2030 Customers are recommended to set the SIMS database to use compatibility mode 110 for maximum performance Includes support for enabling enforced encryption for SQL Connections
SQL Server 2022							We are aware that some schools have moved to SQL2022 already and in those instances we will support through our Escalations team where issues arise from Spring 2024. Full migration tooling will be available from the Summer 2024 release.

Additional notes on SQL 2012 support

SQL 2012 SP4 extended support end date set by Microsoft is 12/07/2022, therefore **ESS can only support an on-premise SQL 2012 Express installation up to and including the Spring 2022 version of SIMS**, this has been communicated in this document for over 2 years. Microsoft will continue to provide extended security updates (ESU) for SQL 2012 (not express) up to 08/07/2025. Customers will need to ensure they have the right support package in place with Microsoft to ensure their instance of SQL 2012 is covered by the ESU. ESS cannot be responsible for a customer's installation of SIMS products on SQL 2012 after the Spring 2022 release where these agreements with Microsoft are not in place. The following is a quote from Microsoft:

> *Eligible customers with Software Assurance under an Enterprise Agreement can purchase Extended Security Updates for Windows Server 2012/2012 R2 and SQL Server 2012 running on-premises.*

What about SQL 2012 Express

SQL 2012 Express is a license-free version of SQL. Extended Security Updates are not applicable to SQL 2012 Express.

Resources
- SQL 2012 Lifecycle: https://docs.microsoft.com/en-us/lifecycle/products/microsoft-sql-server-2012
- SQL 2012 Extended Security Updates FAQ: https://www.microsoft.com/en-us/windows-server/extended-security-updates

SQL Express Edition

SQLExpress cannot be used as a database server if the database size exceeds 10Gb, and is **not** recommended if any of the following are true:

- Number of users is greater than twenty
- School intends to make extensive use of InTouch
- The customer wishes to take advantage of database servers that have more than one CPU or more than four cores
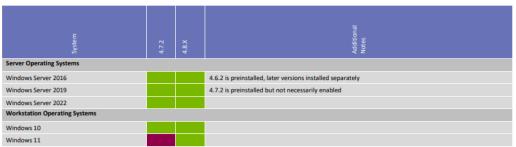
Can customers buy Extended Security Updates for SQL Server 2008 R2 or 2012 Express or Developer Edition?

No. Customers cannot buy Extended Security Updates for SQL Server 2008 R2 Express or Developer Edition. Customers who have Extended Security Updates for SQL Server production workloads are permitted to apply updates to their servers running SQL Server Developer edition solely for development and test purposes.

4.4 Microsoft .NET Framework Support

The version of .NET Framework supported by each server or workstation operating system will vary and it is best that the most recent guidance and advice is retrieved from the following page on the Microsoft Website: https://learn.microsoft.com/en-us/dotnet/framework/get-started/system-requirements

Headline versions that will impact SIMS users can be outlined as follows:

System	4.7.2	4.8.X	Additional Notes
Server Operating Systems			
Windows Server 2016			4.6.2 is preinstalled, later versions installed separately
Windows Server 2019			4.7.2 is preinstalled but not necessarily enabled
Windows Server 2022			
Workstation Operating Systems			
Windows 10			
Windows 11			

ESS now requires a minimum version of 4.7.2 to be installed on servers and workstations using the ESS suite of SIMS products. From the Autumn 2022 release of SIMS7, if the minimum .NET Framework of 4.7.2 is not met, SIMS7 will not load and the user will be prompted to install it as required.

4.5   SQL Compatibility Mode

ESS are aware of some customers experiencing issues with performance when running SQL2016 in its native mode. Following guidance and direction from the EPG group, if you are experiencing this, we recommend changing the compatibility level to 110 within SQL Management Studio. Please contact Education Digital Services for more information.

4.6   TLS Requirements

ESS' suite of products support TLS 1.2.

4.7   Azure SQL

ESS are aware that some schools have subscriptions in Azure, but ESS do not support SIMS in an Azure SQL Managed Instance or as an Azure SQL Database.

5 Additional Information for the TeacherApp

TeacherApp require SIMS Services Manager to be running on a server with a minimum version of .NET Framework 4.7.2.

6 SIMS Connected

For the best experience of using SIMS connected, ESS recommends the use of the latest version of your browser.

Chrome, Safari, Firefox or Microsoft Edge are supported and compatible. Your browser must support HTML5 and the .pdf format must be supported to enable printing on any printer connected to the device.

SIMS Connected is accessible from Windows or Mac OS machines, iOS or Android tablets, and Chromebooks without any additional software requirements.

For the 3rd party VPN Connecter, ESS currently use OpenVPN.

System	April 2019	October 2019	Additional Notes
Version 2.3.2			
Version 2.3.3			We support the 3rd Party VPN Connector on version 2.4.6 or higher.
Version 2.4.6			
Version 2.4.7			

7 SIMS Online Solutions Browser Support (not native Apps)

System	Chrome	Internet Explorer*	Firefox	Safari	Edge	Phone Size Browser	Tablet Size Browser	Additional Notes
Options Online	■	■	■	■	■	■	■	
SchoolView	■	■	■	■	■	■	■	
SIMS Parent, SIMS Student	■	■	■	■	■	■	■	
SIMS Finance	■	■	■	■	■	■	■	
FMS Hub	■	■	■	■	■	■	■	To ensure secure access, HMRC Fraud Prevention Headers works best with Edge, ESS does not support Internet Explorer.
Hosted Discover via .xbap application	■	■	■	■	■	■	■	Please see the additional information below
SIMS Services Manager (SSM)	■	■	■	■	■	■	■	

Hosted Discover via .xbap application Microsoft ended its support for Internet Explorer 11 in June 2022 to favor the Edge browser. We have undertaken some testing of the Hosted Discover (.xbap) application and as long as the user has added the Discover .xbap pages to the "Internet Explorer mode pages" in the Default browser settings for Edge, we have found that Hosted Discover continues to work.

7.1   Discover and SQL Compact Edition

When installing Discover, some elements of SQL Compact Edition (SQLCE) 3.5 were originally installed and used. This version of SQLCE is no longer supported by Microsoft. For the SIMS Summer 2022 installation files of Discover, ESS have removed the use of the legacy SQLCE 3.5 files. This, therefore, means that customers can re-install Discover without SQLCE 3.5 files.

Please ensure you understand the following three scenarios:

If you are using SQL 2012 Express
Your SIMS, FMS, and Discover installation is not supported if you are using SQL 2012 Express on the Summer 2022 versions of the software

If you are using SQL 2012 Licenced with ESU in place
If you choose to re-install Discover on your SQL 2012 instance, SIMS and Discover will not successfully transfer data between the systems. If you wish to continue to use Discover you can:

- Remain on SQL 2012 and your current Discover installation and accept the risk of SQLCE 3.5 files being used. ESS **cannot** be responsible for any data issues or breaches, this risk has to be accepted by the school
- Consider updating your SQL version that is running SIMS and Discover to SQL 2014 or later and re-install Discover

If you are using SQL 2014 or later
Reinstalling Discover to have an installation without the SQLCE 3.5 files present works on SQL2014 (Licensed and Express) and later

If you are using SQL 2014 or later

Reinstalling Discover to have an installation without the SQLCE 3.5 files present works on SQL2014 (Licensed and Express) and later.

8 SIMS Parent and Student App

ESS support the following versions of operating systems;

- Android OS version 7 -13 only. All previous versions are no longer supported, and any device operating on the older versions will not receive further updates.

- For Apple, ESS support version iOS 11 onwards.

On the server where SIMS Services Manager is installed to exchange data between the solutions, .NET framework 4.7.2 is required as a minimum.

9 SIMS.net Version Statement

In line with the terms and conditions of the SIMS Annual Maintenance and Contract ESS will support the current and previous version of SIMS.

Where applicable the terms below will apply:

9.1   Ensure that Main Releases, Software Updates and corrections are installed by the Locations as soon as practical and always within a timescale that will ensure that only the most recent version or the immediately preceding version are in use at any time. ESS retains the right to refuse to accept a support call where older versions are in use.

The support services do not include:

9.1.1   Diagnosis or rectification of problems associated with the other systems, software, or equipment of the Customer or any third party.

9.1.2   Rectification of any defects or errors resulting from modifications to the Software and / or Hosted Services by any person other than ESS.

9.1.3   Remedial action required to any version of the Software other than the most recent Main Release patched to include all subsequent Updates or all but the most recent Update.

9.1.4   Fixes required to any version of the Software other than the most recent Main Release patched to include all subsequent Updates including the most recent Update.