Accessit

Technical guide and specification overview

Version 2.0, June 2017

Technical discussion

Accessit is designed to run on your **local network** or via a fully managed externally-hosted **cloud deployment**, so that you can choose how you want it implemented.

Cloud-hosted option

If you opt for the cloud implementation, you don't need to worry about server hardware; server OS updates and patches; server resources; MS SQL installations and maintenance, or backups. All these concerns are managed by our experienced database administrators, and systems integrators.

Accessit cloud deployments utilise only robust and secure data centres around the world, and data will be stored securely in accordance with each country's relevant data protection legislation.

Customers opting for cloud deployment are also able to choose the zero-deployment option for browser-based connectivity to the management app.

Local-hosted option

For sites opting for the local installation within your local network, there are some minimum server specifications.

Accessit is designed and optimised to run on a modern server class machine. While it doesn't have to be a super highly spec'd machine, Accessit Library will obviously run faster if you have a fast hard drive, fast CPU, and sufficient RAM to manage SQL and the other services. Typically, a server would have 4-8 GB RAM available to the Accessit Library solution. However, Accessit Library adheres to industry standards and design, and the solution can be split over a database server, application server and web server if and as required.

The amount of hard drive space depends on the size of the library. But as a ball-park figure, if we take an average school site with 1,000 students and 50,000 resources, we would normally expect the database to be around 800MB in size. And for larger sites, typically around 1.5GB for the datafile.

Accessit has support for **Windows**, **Linux** and **Macintosh** platforms at both server and client end.

Remember, if you are cloud-hosted, we take care of all the server-side resources for you.

Regardless of local deployment or cloud deployment, Accessit Library is designed to run 24/7 with virtually zero IT staff intervention. For example, features within Accessit provide librarians with easy-to-use tools to design the web browser OPAC themselves; to upload electronic documents to a designated network volume from within Accessit; to manage automated emailing; and so on without having to call on IT services.

In addition, automated tasks and schedules are designed to seamlessly carry out database maintenance and reporting on data integrity, automated updates, automated emailing of overdues, automated URL (dead link) checking, and so on.

Required* machine specs at a glance

The following platforms are supported:

Operating systems

- Windows Client – Windows 7; Windows 8; Windows 10

- Windows Server – 2008 or higher

- Macintosh Client – 10.8 or higher

- Macintosh Server – 10.8 or higher

- Linux Client and Server – typically Suse 10; for other distributions please contact us

Hardware

- Windows or Linux: Server specs – 4-8GB RAM available for the Accessit solution; multicore i5 processor or above; 20GB minimum disk space

- Windows or Linux: Client specs - 4GB RAM; multicore i5 processor or above

- Mac: Server specs - 8GB RAM; Intel Mac or above; 20GB minimum disk space

- Mac: Client specs - 4GB RAM; Intel Mac or above

For local deployments, a client management app needs to be installed. For each computer running the management app, the workstation needs Java 8+ to be present, as follows.

Java

- Windows: Java 8 (32 bit or 64 bit JRE, preferably matching your OS version)

- Macintosh: Java 8 (bundled with Accessit installer)

- Linux: Java 8 (32 bit JRE)

SQL

Generally, MS SQL would be the preferred SQL engine for storing your data, although we do also support Firebird SQL 2.5 for smaller libraries. On Macintosh and Linux servers, Firebird is the default native database engine.

Accessit supports MS SQL version 2008R2 and higher; Firebird 2.5 or higher.

* Note that the required specs described above are primarily for locally-hosted (not cloud-hosted) systems. For customers opting for cloud deployment and browser-based zero-deployment access to the management app, we recommend using Chrome, Firefox or Safari.

Common Questions

Can Accessit run within virtualised environment?

Yes. Examples include Hyper-V and VMWare, assuming the virtualisation is transparent to Accessit, and is provisioned adequately (see previous 'Required machine specs...' section).

Can it run on the latest Windows Server operating environment?

Yes. Support for Windows Server 2008; Windows Server 2008 R2; Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

Can Accessit run under MS SQL?

Yes. Accessit can be installed on MS SQL Server, the minimum supported version is 2008 R2. Also supported: 2012, 2014, 2016.

Will Accessit run within MS SQL Express edition?

Yes. Same editions (as above) are supported.

We're a Mac-Only site - can it sit on a local Mac Server?

Yes. Accessit also supports Firebird SQL (Firebird 2.5) which can be deployed on Windows, Mac and Linux environments.

For 99.9% of users, they will be connecting via a web browser (completely HTML5 compliant) and/or smartphone app. But the power users will have access to the management app installed on their desktop (Windows/Mac/Linux). Does this mean I need to update these apps when there are new releases?

No. Accessit is designed to self-update any apps without IT intervention. So power users get the advantages of an optimised, fast app, and there's nothing else for IT staff to do in terms of maintenance. Apps simply update themselves automatically.

Is Accessit available as a zero deployment for library managers as well as students?

Yes. Of course, all students will connect via a browser. But managers can choose to connect via either a client-side app (installed on their desktop), or as a zero-deployment option purely within their browser (HTML5). The zero-deployment option is only available for customers who also choose the cloud-hosting deployment option.

Does Accessit integrate with AD/LDAP?

Yes. This allows users to authenticate against Active Directory or LDAP via their normal network login.

Does Accessit support SSO?

Yes, Accessit supports Google ("G-Suite"), ADFS, Azure AD, and supports SAML2/Shibboleth, thus will work with various other SAML2-compliant identity solutions.

Accessit

Can Accessit integrate with student administration systems?

Yes. Our aim is always to synchronise automatically with a student administration system. This means that if a student enrols in your organisation this afternoon, and goes to the library tomorrow morning, their details are already updated in the Accessit Library system. We can often sync the student photos at the same time. Note: The syncing process assumes that a read-only connection to the student administration database is possible (preferably via JDBC), or that a suitable API is available.

What if our student administration system doesn't allow read-only access to a "view", or API?

Where a student administration system doesn't have the capabilities for this type of interoperability, we can often still sync against a CVS file. This means that even if a direct connection is not possible, where an automated task can be created to export a CSV file (from the student administration system), Accessit will then sync against that CSV file. Therefore, even in this scenario, the whole process can be made automated and seamless.

Can Accessit integrate with Moodle?

Yes, Accessit has its own Moodle block. In this way, when a student logs into Moodle, it can immediately report that the student has overdue items, or a reserved book that needs to be collected from the library.

What about integration with other platforms?

Accessit supports SOAP and JSON services, allowing for a wide range of integration options.

Can Accessit support biometric identification?

Yes. Accessit has support for biometric fingerprint identification, if required. Use of the fingerprint identification kit requires the Accessit client management app be installed on the computer with the fingerprint reader.

Do I have to have the web services and the database on the same server?

No. The server components and services can be split up to operate on different servers if required.

What sort of internet speed do I need for the hosted solution?

Minimum recommended 10Mb down, 5 Mb up. However, it's also important to check that your network is not throttling back the connection (which would result in reduced connectivity). Another consideration is whether you have appropriate QOS (Quality of Service) rules in place to ensure library staff get adequate bandwidth at peak times (for example, if your organisation permits unlimited internet access at lunchtime, causing high utilisation, it is important that librarians get higher priority).

These are just some of the common questions from IT staff. Please contact us for clarification on any of the above or other technical questions you may have.

Typical integrations with Accessit

LDAP/AD integration

This allows students to authenticate via their normal network login details (rather than having to know their patron details).

Single Sign On (SSO)

This enables students who are already logged into another SSO compliant web application to share authentication credentials via security tokens. In this way, once a student is logged into one such web application (such as their organisation's portal), Accessit will recognise that student without needing them to re-authenticate. Accessit supports Google-based authentication , ADFS, Azure AD, and other forms of SAML2-based implementations.

SIP2

Enabling student integration with other services such as eBook suppliers, RFID, and security gates.

EDI (electronic data interchange)

This integration enables large libraries to manage the ordering processes electronically.

Federated Searching

Including Z39.50 protocols and Z39.83 (interloan protocol).

Biometric authentication

Including fingerprint device-to-computer (1 : 1) support utilising Verifinger and NIST algorithms, and centralised biometric management system (Biostore).

Student Information Systems

Accessit can integrate with many student administration systems so that details updated or added in the student information system are automatically synchronised within Accessit. This is a one-way syncing process, from the student information system to Accessit. So when a student is enrolled in the office, or details on a student are modified in the office, relevant information within Accessit is automatically updated. This can also include student photographs as well, if required.

SOAP and JSON services

SOAP and JSON services are available within Accessit, providing the ability to extend access to the system and greater interoperability with other systems.

Specific third party integrations

- Accelerated Reader
- ADFS & Azure ADFS
- Bibliotheca
- Britannica
- CASES21
- ClickView
- Denbeigh
- EBSCO
- EDSAS
- EPIC
- EZProxy
- FE Technology
- GALE
- JSTOR
- KAMAR
- Khan Academy
- Linc-Ed
- Maze
- Microsoft Azure
- PC School
- Plescon
- Premier's Reading Challenge
- Project Gutenberg
- RFID
- SCIS
- Security gates
- SSO – Google Authentication
- SSO – SAML2
- Syndetics
- Synergetic
- Tag-Alert
- TV4Education
- Twitter
- WebLinks
- Wheelers
- World Book