

SMSC

Installation & User Guide

Windows Version 3.6.9
25.08.2020

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For more information about this product contact Australian Clinical Labs at:
1300 66 99 61
ehealth.helpdesk@clinallabs.com.au

Chapter 1 Overview

Australian Clinical Labs SMSC Overview

Overview

Australian Clinical Labs SMSC is a secure messaging network which fully automates the transfer of pathology result files (HL7/PIT) and reports and summaries (in any file format) from Australian Clinical Labs, securely and directly to the clinic management software (CMS) of Medical Practitioners. Australian Clinical Labs SMSC may also operate independently of CMS via a built-in viewer or via the web with results viewed securely online at the Australian Clinical Labs website. Reports and summaries are presently viewed via the built-in viewer or the Australian Clinical Labs website.

Australian Clinical Labs SMSC is compatible with all known CMS operating in Australia. Its easy-to-use interface allows operators to simply set the retrieval schedule for automatic download of results, reports and summaries or for manual download at any time.

Pathology Requests (e-orders)

Pathology requests may also be sent via Australian Clinical Labs SMSC. The customised requests interface is seamlessly presented to the referring Medical Practitioners when they select the particular Diagnostic Laboratory on their CMS. Output includes both printed test request forms with bar codes and electronic HL7 pathology test requests.

Security

Australian Clinical Labs SMSC utilises PKI x.509 v3 digital certificates with the 128 SSL data transfer, providing highly secure communication, authentication and data integrity for all parties. It is fully supported by an integrated data management system involving professionally maintained servers, extensive back-end audit and account administration systems.

The Australian Clinical Labs SMSC built-in files viewer may be password protected to allow authorised users only to access pathology result files.

Viewing files via the Australian Clinical Labs website is password protected.

Installation & Support

Australian Clinical Labs SMSC is simple to install and is fully supported by qualified and dedicated staff who are involved with all aspects of software development, maintenance and customer support.

Chapter 2 Installation

To install Australian Clinical Labs SMSC double click on the setup file downloaded from <https://ehealth.clinicallabs.com.au/>. This will start the InstallShield Wizard, which breaks down the installation to a series of interactive steps.

Welcome

You should see the 'InstallShield Wizard – Welcome....' screen.

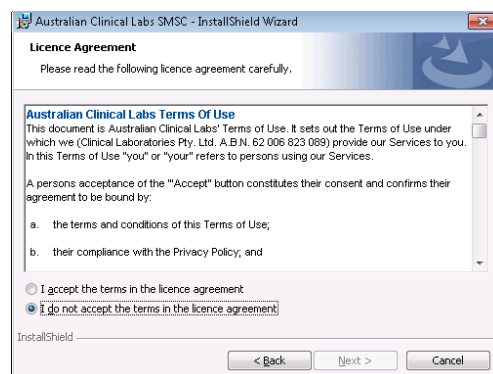
Click 'Next' to continue.



Licence Agreement

You should read and accept the Licence Agreement.

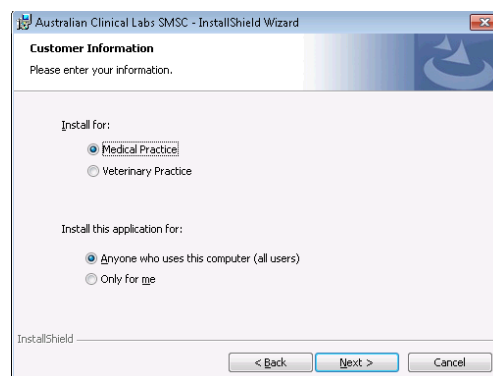
Click 'Next' to continue.



Customer Information

Select the installation type.

Click 'Next' to continue.

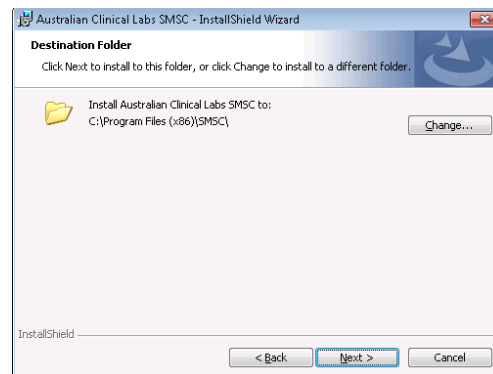


Destination Folder

The 'Destination Folder' default path is
C:\Program Files (x86)\SMSC\.

If you wish to change this click 'Change' and browse to your selected path.

Click 'Next' to continue.

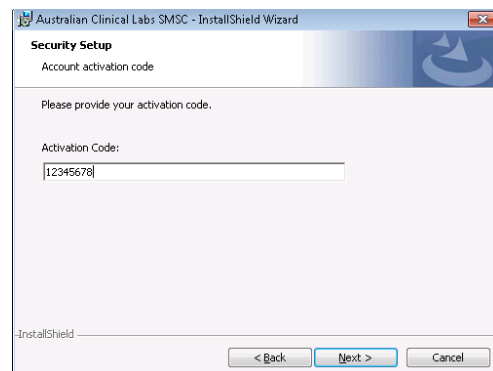


Security Setup

Enter the 'Activation Code' as provided by Australian Clinical Labs.

Click 'Next' to continue.

If you do not have an Activation Code phone Australian Clinical Labs on 1300 66 99 61.

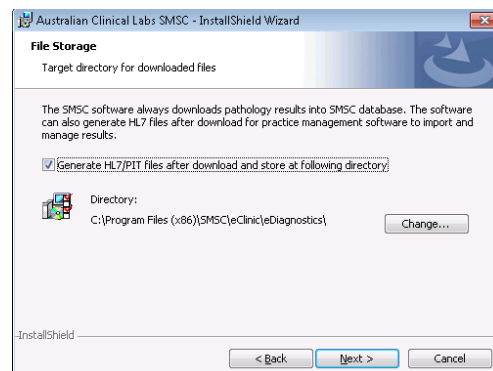


File Storage

Australian Clinical Labs SMSC can generate HL7/PIT result files for integration with your CMS.

Click 'Change' and navigate to the appropriate directory that is configured in your CMS.

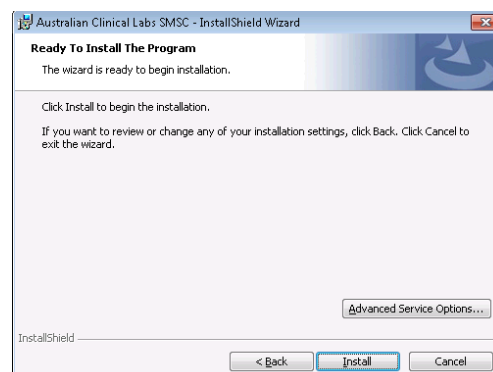
If you have no CMS, leave the checkbox unticked.



Ready To Install The Program

If the setup has been successful, you will see the 'Ready To Install The Program' screen. At this stage you can setup Advanced Service Options, or leave them as default.

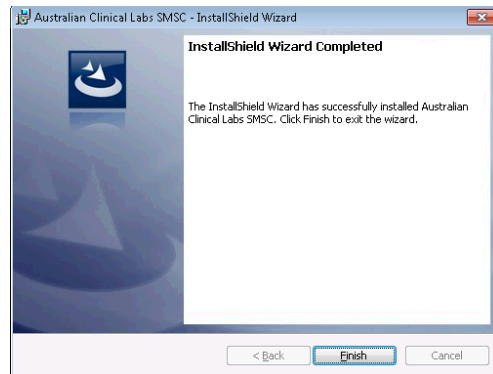
Click 'Install' to continue.



InstallShield Wizard Completed

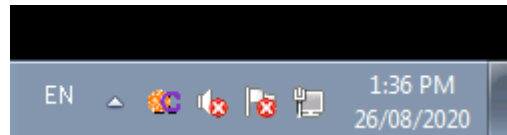
Once the installation is completed you will see the 'InstallShield Wizard Completed' screen.

Click 'Finish' to finalise the installation and launch Australian Clinical Labs SMSC software.



Desktop & Tray Icons

After finishing the installation, the Australian Clinical Labs SMSC icon will be placed on your desktop and in the System Tray (Notification Area) at the bottom right hand side of the screen

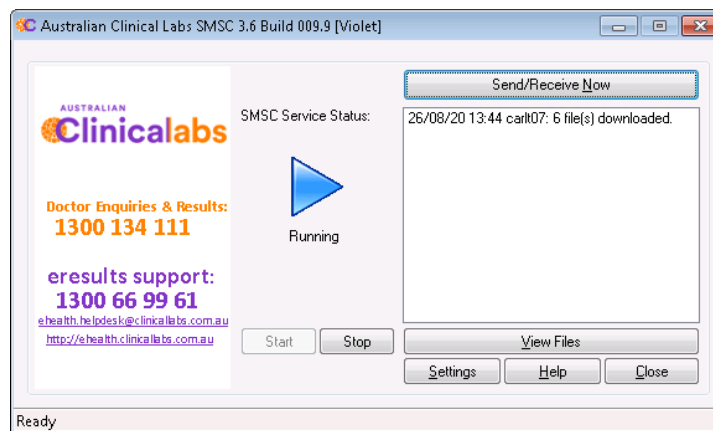


Chapter 3 Operation

Interface

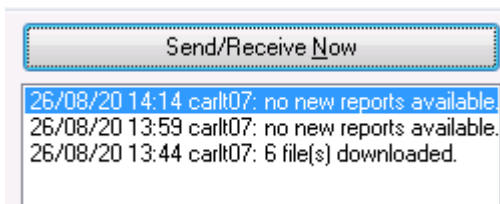
Australian Clinical Labs SMSC Interface

After launching the application, you should see an Australian Clinical Labs SMSC icon on the desktop and in the systems tray. Double click on either of these icons to open the Australian Clinical Labs SMSC interface.



Downloading Results

To begin downloading results click 'Send/Receive Now'. Following a successful connection Australian Clinical Labs SMSC will request a list of results from the server and display the download status, e.g. 'downloading 1 of 4 files' in the bar at the base of the screen. This will then be replaced with a successful download message, e.g. '4 files successfully downloaded', along with the date and time.



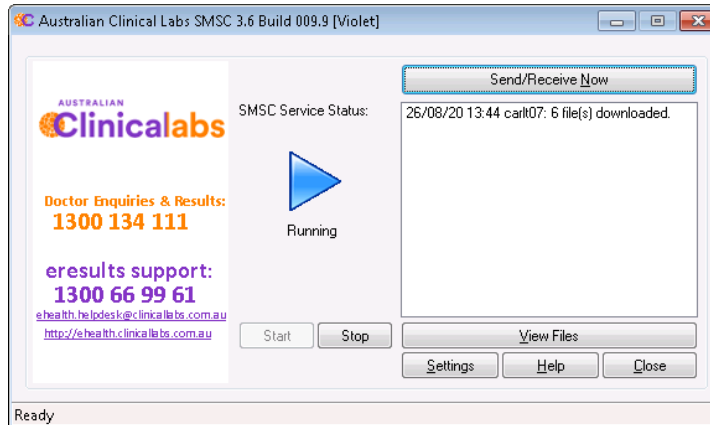
If Australian Clinical Labs SMSC fails to successfully retrieve results an error message starting with 'Operation Failed....' will be displayed in the text box instead.

If this occurs, phone Australian Clinical Labs on 1300 66 99 61 for assistance.

Configuration

Configuration of Australian Clinical Labs SMSC is done via the 'Settings' panel.

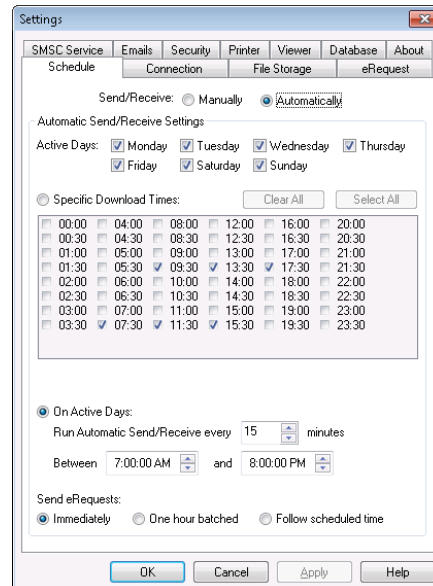
Open the 'Settings' panel by clicking the 'Settings' button located at the bottom of the Australian Clinical Labs SMSC interface.



Download Schedule

The 'Schedule' tab in the 'Settings' panel allows you to set Australian Clinical Labs SMSC to download results automatically.

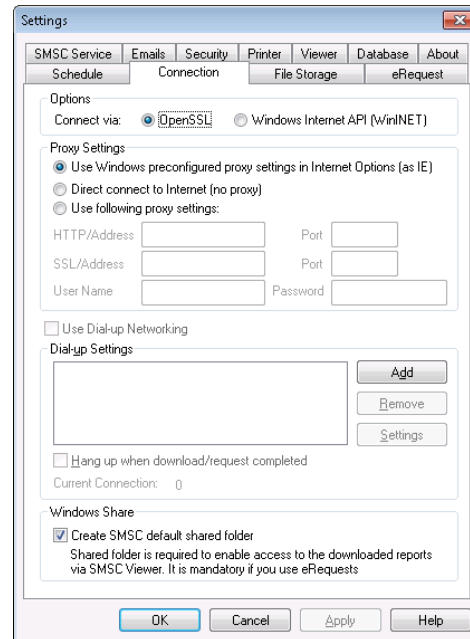
- Upon clicking 'Settings' to open the Australian Clinical Labs SMSC 'Settings' panel, the 'Schedule' tab is displayed by default.
- Select 'Automatically' and set your receipt schedule (based on how often you would like to receive results during the week and during the day) via 'Auto Send/Receive Settings'.
- If e-order functionality is enabled you need to set the sending pattern for generated e-orders.



Internet Connection

The 'Connection' tab in the 'Settings' panel allows you to change the details of your connection to the internet.

- SMSC can connect to Internet using OpenSSL or Windows Internet API (WinINET) libraries.
- Enter Proxy Settings if applicable
- Select "Use Dial-up Networking" if your Internet connection uses it.
- Select your internet service provider in the 'Dialup Settings' box.
- If you require that Australian Clinical Labs SMSC disconnects from the internet after downloading results, tick the 'Hang up when download/request completed' box.
- Select "Create SMSC default shared folder" if you require SMSC Viewer over the network.

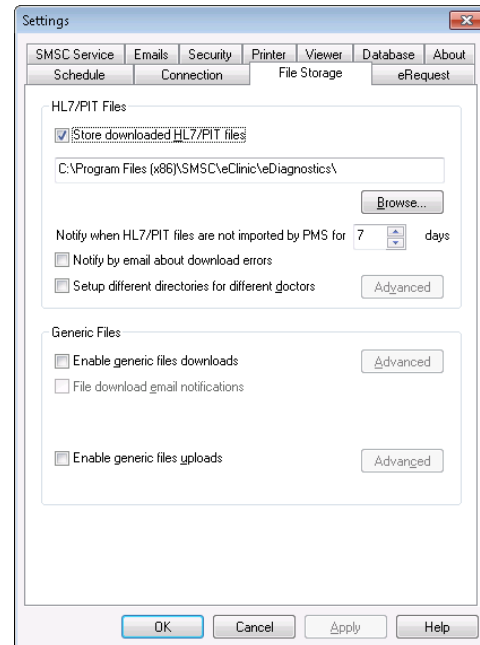
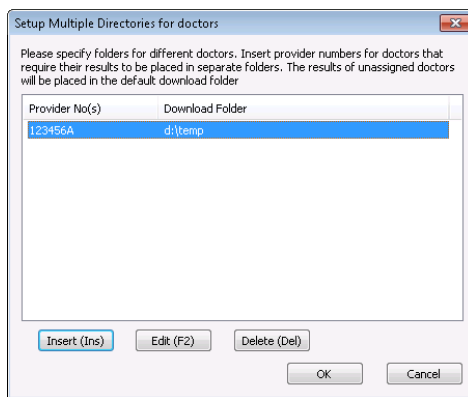


File Storage

The 'File Storage' tab in the 'Settings' panel allows you to specify where you wish the pathology result files to be stored upon downloading.

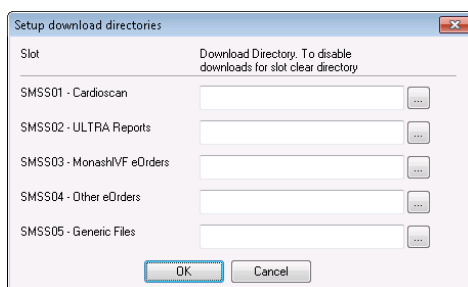
HL7/PIT Files

- Make sure 'Store downloaded HL7/PIT files' is ticked.
- Click 'Browse' and navigate to the appropriate results storage directory.
- If your CMS uses a global inbox or only one pathology lab is being used for results, leave 'Setup different directories for different doctors' unticked. Otherwise you can setup different download folders for doctors:



Generic Files

- SMSC can be used to download and upload generic files. Setup the folders for these files only when asked by Australian Clinical Labs



Security

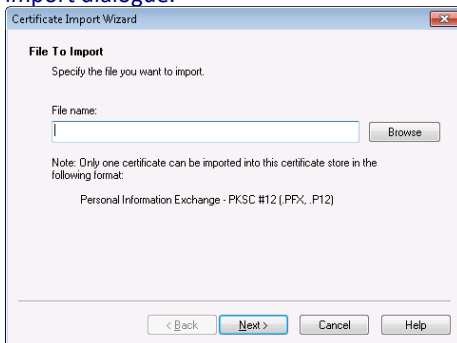
Certificates

Australian Clinical Labs SMSC utilises PKI x.509 v3 digital certificates. Digital certificates can be either manually imported or downloaded from the server upon request. The security system uses a combination of certificate and activation code to validate a user. An activation code is only valid for one instance of an install. A new activation code can be obtained from the Australian Clinical Labs Support Team.

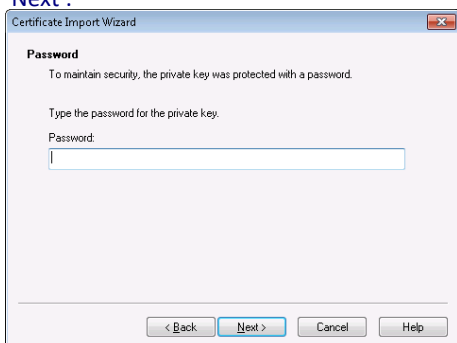
Manually Importing Digital Security Certificate

If the certificate file is provided to you by Australian Clinical Labs you can manually import it. Otherwise skip to the Security Reactivation section below to activate SMSC using an activation code

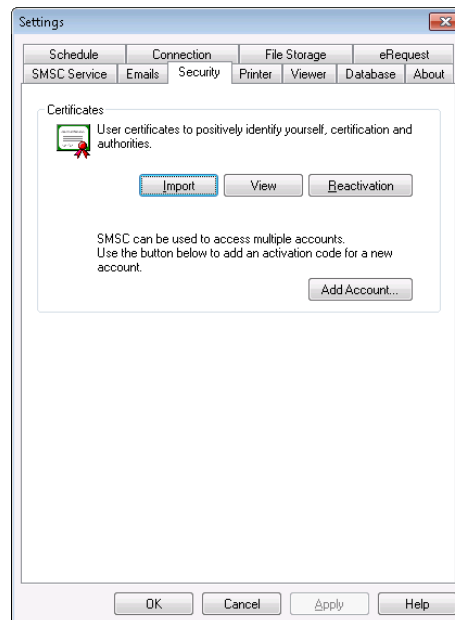
- Open security settings by clicking 'Settings' from the Australian Clinical Labs SMSC interface and then the 'Security' tab.
- Click the 'Import' button to start the manual import dialogue.

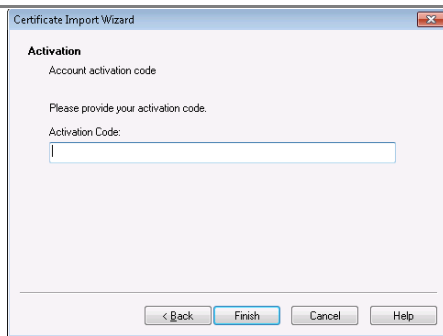


- Click the 'Browse' button and navigate to the certificate file. Click 'Next'.
- Enter the 'Password' as provided by the Australian Clinical Labs Support Team. Click 'Next'.

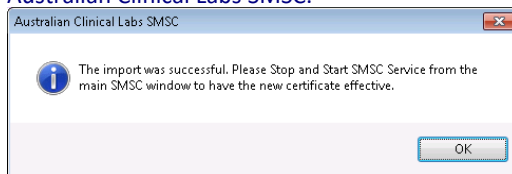


- Enter the 'Activation Code' as provided by the Australian Clinical Labs Support Team. Click 'Next'.

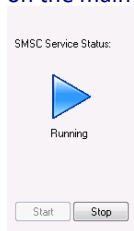




- If the import was successful you will see a message advising you to exit and reopen Australian Clinical Labs SMSC.



- To Stop and Start SMSC Service use the buttons on the main screen:

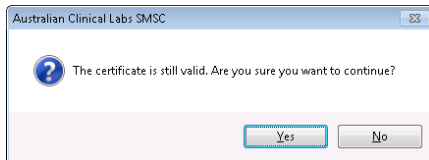


- After restarting of SMSC Service Click the Send/Receive Now button

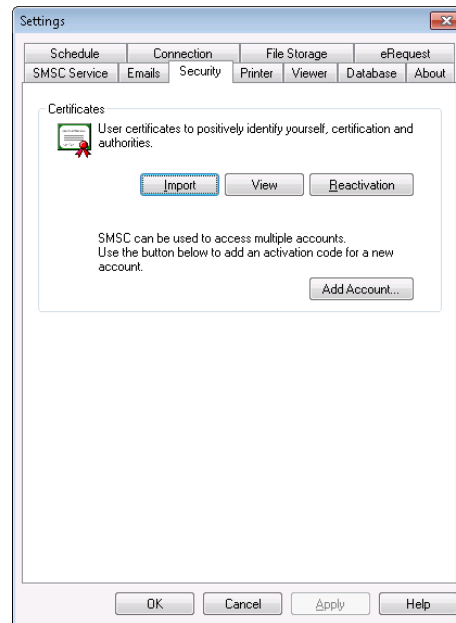
Security Reactivation

In some instances Australian Clinical Labs SMSC will require reactivation. This is the process of resetting the digital security certificate and activation code combination. A new activation code will need to be acquired from the Australian Clinical Labs Support team. The digital certificate will be automatically downloaded from the Australian Clinical Labs server.

- To start the reactivation process, open security settings by clicking 'Settings' from the Australian Clinical Labs SMSC interface and then the 'Security' tab.
- Click the 'Reactivation button. If a valid certificate already exists you may be prompted with a 'The certificate is still valid....' message. Click 'Yes' to continue.

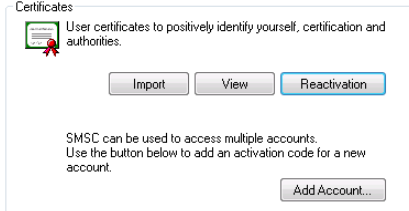


- Enter the 'Activation Code' as provided by the Australian Clinical Labs Support team. Click 'Next'.
- After entering the activation code you will be prompted with a message asking you to exit and restart Australian Clinical Labs SMSC.
- Click 'Finish' for the reactivation.



Multi-Account Support

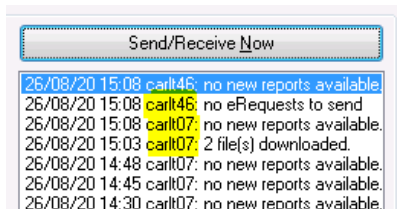
Australian Clinical Labs SMSC can be used to download reports for multiple SMSC To get started with the multi-account setup click the Add Account button:





After the new activation code is entered the New Clinic Settings dialog will appear that will allow configure details for the new account:

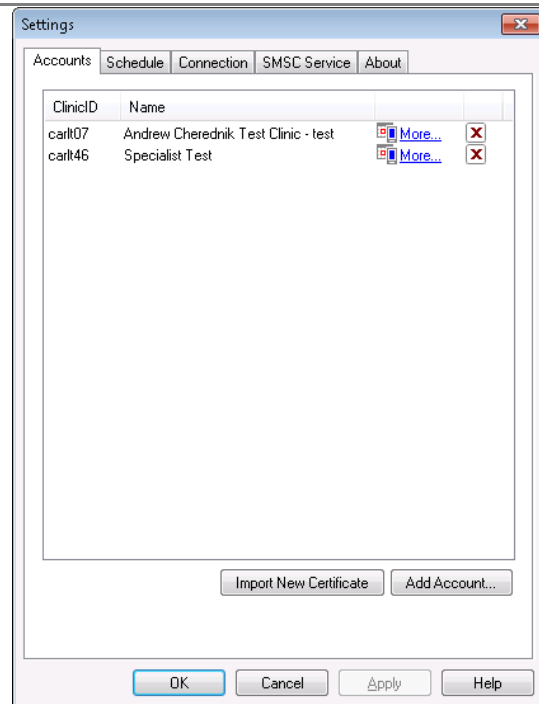


Enter the File Storage and other details for the new account. Close the Settings dialog and click the Send/Receive Now button. The new account will be activated. The SMSC will have the clinic id listed in the list:



In Multi-Account mode the settings for each Clinic ID can be configured separately

- Click the  More... icon to configure settings for the Clinic ID, or double click the row
- Click the  icon to delete the Clinic ID.
- A new account can be added using the Import New Certificate or the Add Account button

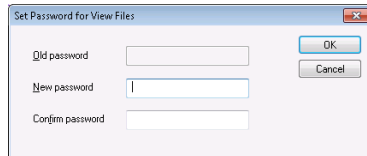


Additional Settings

Viewer Settings

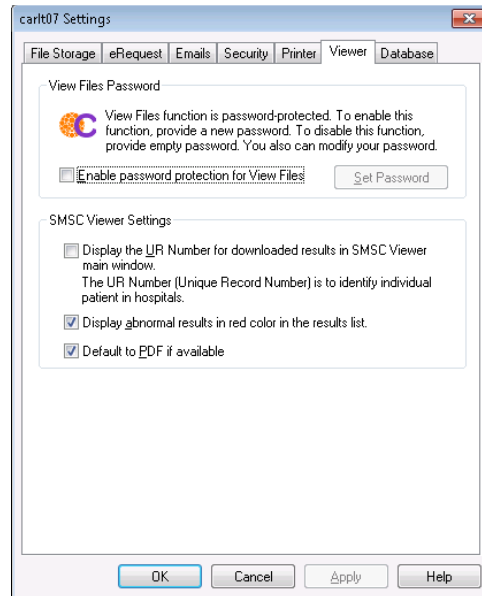
The built-in 'Files Viewer' can be password protected allowing only authorised users to access pathology result files.

- Tick the 'Enable password protection for view files' box and click on the 'Set Password' button.
- Click the Set Password button and enter the new password:



A small dialog box titled 'Set Password for View Files'. It contains three text input fields: 'Old password', 'New password', and 'Confirm password'. To the right of the 'New password' field is a 'Set Password' button. At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

- The 'UR No.' option is unique to hospital installations and allows the unique identification of a hospital patient. Tick this option if you would like the UR No. to be displayed.
- The 'Display abnormal results in red in the results list' option is for displaying abnormal results in red in the 'View Files' list. Tick if you require this function.
- If PDF reports are available for your account the Viewer can be configured to view them as default.

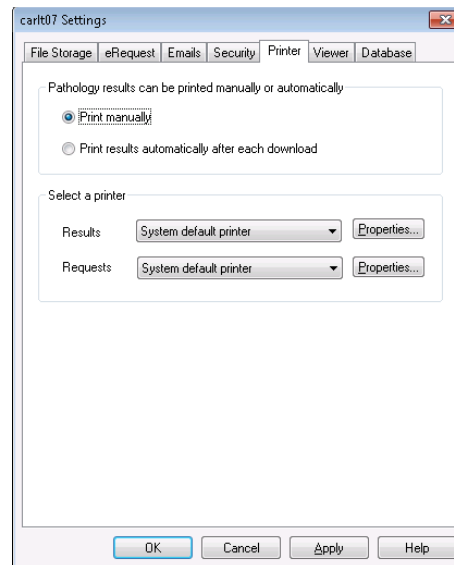


The 'carlt07 Settings' dialog box with the 'Viewer' tab selected. It has a tabbed interface with tabs for File Storage, eRequest, Emails, Security, Printer, Viewer, and Database. The 'View Files Password' section contains a text box with a password, a 'Set Password' button, and a checkbox labeled 'Enable password protection for View Files'. The 'SMSC Viewer Settings' section contains three checkboxes: 'Display the UR Number for downloaded results in SMSC Viewer main window.' (unchecked), 'Display abnormal results in red color in the results list.' (checked), and 'Default to PDF if available' (checked). At the bottom are 'OK', 'Cancel', 'Apply', and 'Help' buttons.

Printer Settings

There are a number of printing options available.

- For printer options, click the 'Settings' button from the Australian Clinical Labs SMSC interface and then click the 'Printer' tab.
- After downloading of files has occurred Australian Clinical Labs SMSC can be enabled to automatically print the result files. If this option is required select the 'Print files automatically after each download' option.
- The default is 'Print manually'.
- The 'Select a printer' option allows the user to specify where to send the print jobs. By selecting the down arrow, available printers are listed.

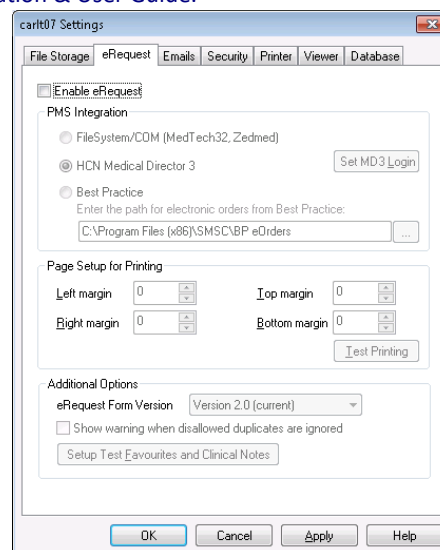


e-order (eRequest) Options

'e-order' or eRequest is for sites that are running Medical Director, Zedmed, MedTech32 or Best Practice and which have enabled the sending of electronic pathology requests.

For more information on e-order see the e-order Installation & User Guide.

- To enable the e-order function, make sure a 'CMS Integration' option is selected.
- You can send a test request to the printer by selecting the 'Test Printing' button.
- If the request is not properly aligned you can adjust the layout by modifying the margins.
- Additional Options allow to enable or disable e-orders for individual doctors, as well as define Favourites for each doctor.



Database Settings

The database settings options screen allows the database archiving times be set as well as various database maintenance functions.

Database Archive

- If database archiving is required, the 'Archive results.....' option should be ticked.
- This option also allows you to set the archive anniversary in monthly increments.

Compact & Repair Database

- Clicking the 'Compact & Repair SMSC Database' button will compact and attempt to repair both the main database and the archive database if they have become corrupt.

Note – The viewer and all the desktop clients will need to be closed as this operation needs exclusive access to the databases

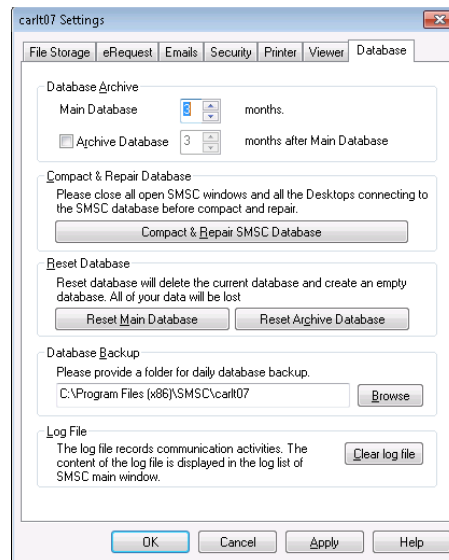
Reset Database

Clicking either 'Reset Database' button will delete the old database and create the new one if it has become corrupt.

Note – The viewer and all the desktop clients will need to be closed as this operation needs exclusive access to the databases.

Database Backup

SMSC keeps a seven-day daily backup of its database. Provide a path for daily backup using the Browse button.

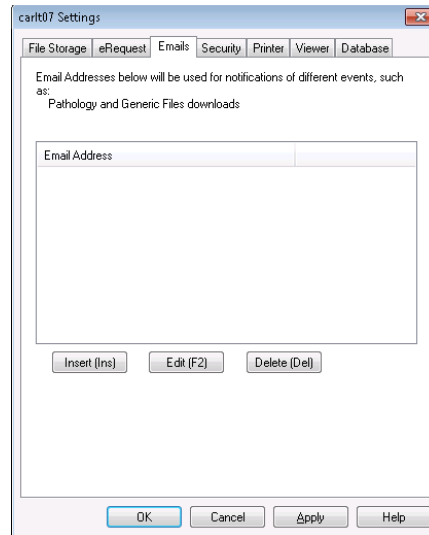


Email Settings

SMSC has an option to send emails. The emails can be enabled for these events:

- Pathology and Generic File download errors
- Generic File notifications

Use the Insert, Edit and Delete buttons to adjust the email addresses as required



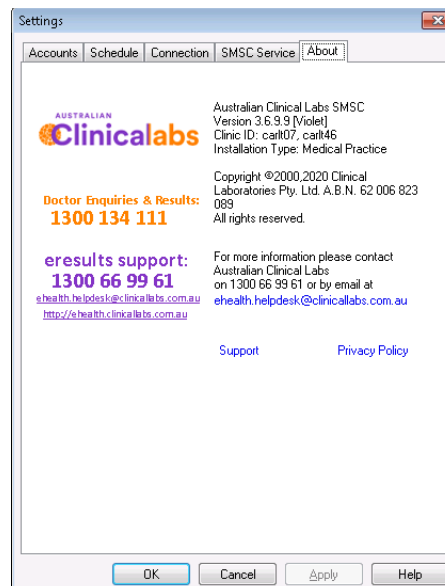
New Versions & Support

New versions of Australian Clinical Labs SMSC are released frequently throughout the year. You can determine the version you are running from the 'About' tab in the 'Settings' panel.

The 'About' screen identifies:

- The 'Version' that you are running
- The 'Clinic ID'
- The 'Installation Type'

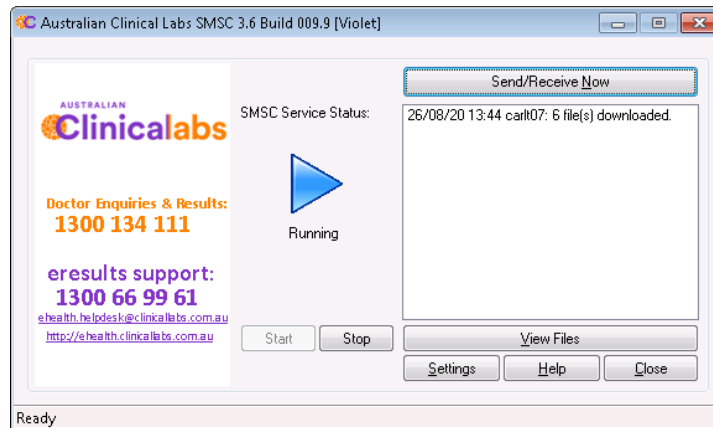
Also listed are ways to contact Australian Clinical Labs and a 'Help' button for further online support.



Chapter 4 Using The Files Viewer

Australian Clinical Labs SMSC has a built-in 'Files Viewer' which can be used to view all downloaded files independently of the Clinic CMS.

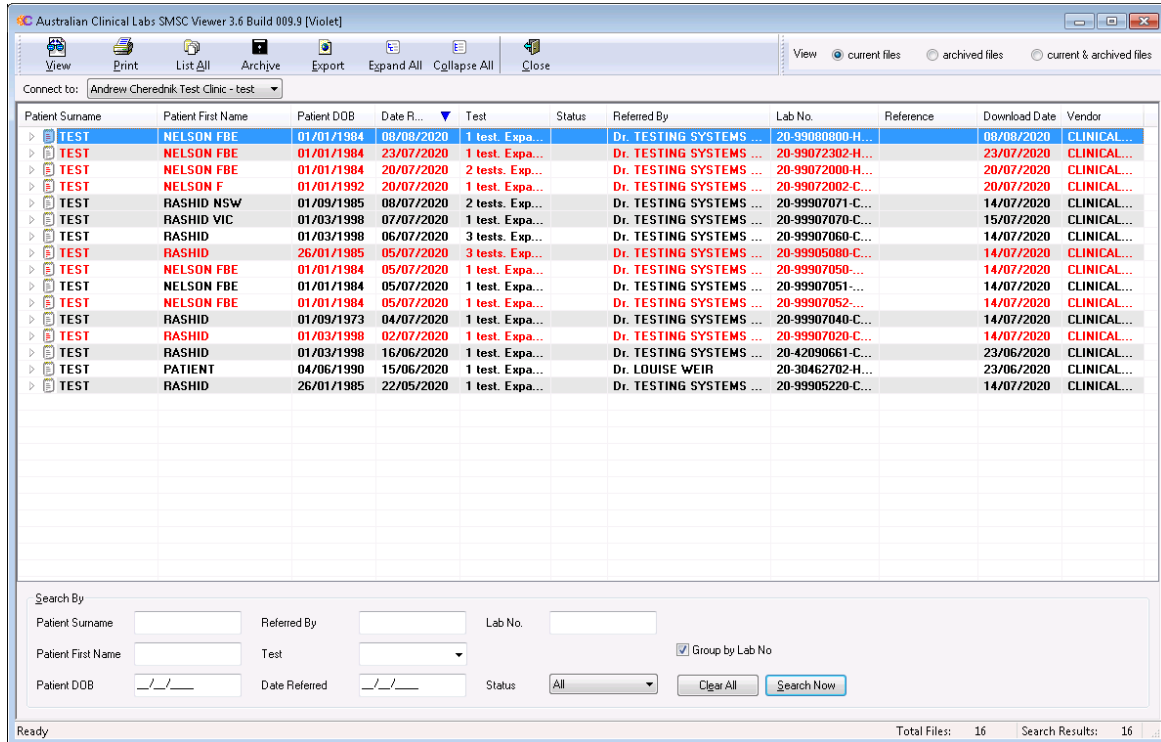
- To view result files, click the 'View Files' button at the Australian Clinical Labs SMSC interface.



- If enabled, enter your password to open the 'Files Viewer'.
- Then click 'OK'.

Below is an example of a results list from within the 'Files Viewer'.

- The result details are listed in columns e.g. 'Patient Surname', 'Lab No.' etc.
- To list by a particular detail, click the corresponding column. A blue arrow will appear indicating either ascending or descending sorting order of detail.
- Note - The results in red indicate abnormal test results.
- To view other files click 'Other Files'.



The screenshot shows the 'Australian Clinical Labs SMSC Viewer 3.6 Build 009.9 [Violet]' window. The main area displays a table of test results with columns: Patient Surname, Patient First Name, Patient DOB, Date R..., Test, Status, Referred By, Lab No., Reference, Download Date, and Vendor. The 'Test' column contains entries like '1 test. Expa...' and '2 tests. Expa...'. Some rows are highlighted in red, indicating abnormal results. The interface includes a menu bar with options like View, Print, List All, Archive, Export, Expand All, Collapse All, and Close. A search bar at the bottom allows filtering by Patient Surname, Referred By, Lab No., Patient First Name, Test, Patient DOB, Date Referred, and Status. The status is currently set to 'All'. The bottom right corner shows 'Total Files: 16' and 'Search Results: 16'.

Patient Surname	Patient First Name	Patient DOB	Date R...	Test	Status	Referred By	Lab No.	Reference	Download Date	Vendor
TEST	NELSON FBE	01/01/1984	08/08/2020	1 test. Expa...		Dr. TESTING SYSTEMS ...	20-99080800-H...		08/08/2020	CLINICAL...
TEST	NELSON FBE	01/01/1984	23/07/2020	1 test. Expa...		Dr. TESTING SYSTEMS ...	20-99072302-H...		23/07/2020	CLINICAL...
TEST	NELSON FBE	01/01/1984	20/07/2020	2 tests. Expa...		Dr. TESTING SYSTEMS ...	20-99072000-H...		20/07/2020	CLINICAL...
TEST	NELSON F	01/01/1992	20/07/2020	1 test. Expa...		Dr. TESTING SYSTEMS ...	20-99072002-C...		20/07/2020	CLINICAL...
TEST	RASHID NSW	01/09/1985	08/07/2020	2 tests. Expa...		Dr. TESTING SYSTEMS ...	20-99907071-C...		14/07/2020	CLINICAL...
TEST	RASHID VIC	01/03/1998	07/07/2020	1 test. Expa...		Dr. TESTING SYSTEMS ...	20-99907070-C...		15/07/2020	CLINICAL...
TEST	RASHID	01/03/1998	06/07/2020	3 tests. Expa...		Dr. TESTING SYSTEMS ...	20-99907060-C...		14/07/2020	CLINICAL...
TEST	RASHID	26/01/1985	05/07/2020	3 tests. Expa...		Dr. TESTING SYSTEMS ...	20-99905080-C...		14/07/2020	CLINICAL...
TEST	NELSON FBE	01/01/1984	05/07/2020	1 test. Expa...		Dr. TESTING SYSTEMS ...	20-99907050-...		14/07/2020	CLINICAL...
TEST	NELSON FBE	01/01/1984	05/07/2020	1 test. Expa...		Dr. TESTING SYSTEMS ...	20-99907051-...		14/07/2020	CLINICAL...
TEST	NELSON FBE	01/01/1984	05/07/2020	1 test. Expa...		Dr. TESTING SYSTEMS ...	20-99907052-...		14/07/2020	CLINICAL...
TEST	RASHID	01/09/1973	04/07/2020	1 test. Expa...		Dr. TESTING SYSTEMS ...	20-99907040-C...		14/07/2020	CLINICAL...
TEST	RASHID	01/03/1990	02/07/2020	1 test. Expa...		Dr. TESTING SYSTEMS ...	20-99907020-C...		14/07/2020	CLINICAL...
TEST	RASHID	01/03/1998	16/06/2020	1 test. Expa...		Dr. TESTING SYSTEMS ...	20-42090661-C...		23/06/2020	CLINICAL...
TEST	PATIENT	04/06/1990	15/06/2020	1 test. Expa...		Dr. LOUISE WEIR	20-30462702-H...		23/06/2020	CLINICAL...
TEST	RASHID	26/01/1985	22/05/2020	1 test. Expa...		Dr. TESTING SYSTEMS ...	20-99905220-C...		14/07/2020	CLINICAL...

Main Buttons

When a result is selected in the 'Files Viewer' screen, a number of options become available in the menu bar.

- 'View' – Opens the pathology result files for viewing
- 'Print' – Sends the file to the printer
- 'List All' – Refreshes the results list
- 'Archive' – Places the selected result into the result archive database
- 'Export' – Enables the selected result to be exported as a stand-alone 'html' file
- 'Close' – Closes the 'Files Viewer' and returns to Australian Clinical Labs SMSC.

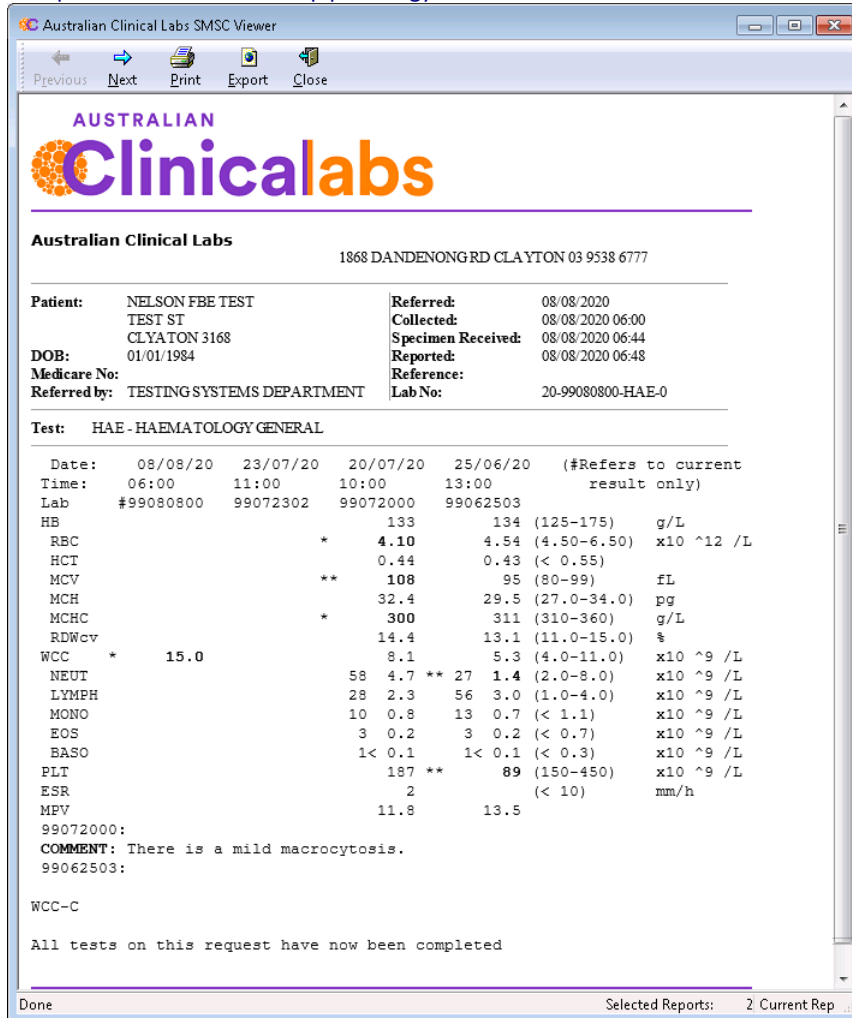
Archive Options

Also listed in the menu are the archive options. Australian Clinical Labs SMSC stores results in two separate databases, 'current files' and 'archived files'.

You may select the list is to be viewed or select 'current & archived files' to view the complete list of result files available.

Viewing A Result

To view a particular result select it and click the 'View' button, or simply double-click it. The example shown is a mocked-up pathology result file.



Australian Clinical Labs SMSC Viewer

Previous Next Print Export Close

AUSTRALIAN Clinicallabs

Australian Clinical Labs 1868 DANDENONGRD CLAYTON 03 9538 6777

Patient: NELSON FBE TEST
TEST ST
CLYATON 3168
DOB: 01/01/1984
Medicare No:
Referred by: TESTING SYSTEMS DEPARTMENT

Referred: 08/08/2020
Collected: 08/08/2020 06:00
Specimen Received: 08/08/2020 06:44
Reported: 08/08/2020 06:48
Reference:
Lab No: 20-99080800-HAE-0

Test: HAE - HAEMATOLOGY GENERAL

Date:	08/08/20	23/07/20	20/07/20	25/06/20	(#Refers to current result only)
Time:	06:00	11:00	10:00	13:00	
Lab	#99080800	99072302	99072000	99062503	
HB			133	134	(125-175) g/L
RBC		*	4.10	4.54	(4.50-6.50) x10 ¹² /L
HCT			0.44	0.43	(< 0.55)
MCV		**	108	95	(80-99) fL
MCH			32.4	29.5	(27.0-34.0) pg
MCHC		*	300	311	(310-360) g/L
RDWcv			14.4	13.1	(11.0-15.0) %
WCC *	15.0		8.1	5.3	(4.0-11.0) x10 ⁹ /L
NEUT			58	4.7	** 27 1.4 (2.0-8.0) x10 ⁹ /L
LYMPH			28	2.3	56 3.0 (1.0-4.0) x10 ⁹ /L
MONO			10	0.8	13 0.7 (< 1.1) x10 ⁹ /L
EOS			3	0.2	3 0.2 (< 0.7) x10 ⁹ /L
BASO			1<	0.1	1< 0.1 (< 0.3) x10 ⁹ /L
PLT			187	**	89 (150-450) x10 ⁹ /L
ESR			2		(< 10) mm/h
MPV			11.8	13.5	

99072000:
COMMENT: There is a mild macrocytosis.
99062503:

WCC-C

All tests on this request have now been completed

Done Selected Reports: 2 Current Rep