cobas® infinity laboratory solution 3.0
Product information

cobas® infinity laboratory solution

LIS/Host Communication

cobas® infinity supports standard communication protocols to connect with laboratory Information Systems and other host systems.

Supported messages include:
- Order Query
- Demographic Updates
- Patient Results
- QC Results

- HL7 v2.x & v3.x
- Native XML
- SOAP Web Services
- IHE standard frameworks for Laboratory Testing Workflow (LTW)
- Laboratory Analytical Workflow (LAW)

Instrument Connectivity

cobas® infinity supports standard communication protocols to connect with laboratory instruments.

Supported messages include:
- Order Query
- Demographic Updates
- Patient Results
- QC Results

- Pre-analytics:
  - cobas® connection modules (CCM)
  - cobas® 8100 automated workflow series
  - MODULAR *PRE-ANALYTICS* (MPA)
  - cobas p 512, cobas p 612, cobas p 471, cobas p 671, cobas p 312 (incl. Dynamic Interface)
  - Other 3rd party systems
- Post-analytics:
  - cobas p 501/701
  - Rotastock
- Connectivity with 3rd party applications via (ASTM, HL7 v2/v3)

Server operating systems

(admistrator rights required)

- Microsoft Windows Server 2008 R2 SP1 Enterprise Edition
- Microsoft Windows Server 2012 R2 Standard Edition
- Microsoft Windows Server 2016 Standard Edition

Server environment

Database server: InterSystem® Healthshare Foundation® Database.

Web Server: Apache™ server.

Any virtualized system with resources dedicated following the outlined hardware specifications can be used as a virtualized environment.

Antivirus usage is allowed.

High availability solution options

Overview of the Central Lab deployment options (mirroring is the option recommended by InterSystems):

- **Mirroring (synchronous and asynchronous)**

Database mirroring is a high-availability solution that is used to increase database availability. In the event of a disaster, a standby copy of the database can be brought online.

- **Clustering**

Configuration based on a system configured in cluster. It consists of a set of disks (disk rack), shared by two identical servers, with a system of automatic switching between servers; it also has a RAID 5 for automatic load balancing on the disks.

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Server hardware requirements

Size	S	M	L	XL
Tubes/day (including aliquotes)	5,000	10,000	20,800	52,400
Results/day	35,100	71,550	224,000	560,000
Peak Tubes/hour (including reflex/rerun)	500	1,000	2,500	6,600
Peak results/hour	3,510	7,155	26,923	70,534
Users' Concurrency	8	15	30	50

Hardware recommendations				
RAM (DDR4 - GB)	8–16	8–16	16–32	16–32
CPU (cores)	4–6	6–8	20–24	24–32
Storage (retention days)				
OS (GB)	36	36	36	36
DB (RAID 10) SSD** (GB) Data Traces	(0.5 GB x retention days) x 2 (0.5 GB x log days) x 2	(1 GB x retention days) x 2 (1 GB x log days) x 2	(3.5 GB x retention days) x 2 (2.7 GB x log days) x 2	(9 GB x retention days) x 2 (7 GB x log days) x 2
Images (RAID 10) SSD**	See estimating additional disk space requirements section			
Journals (RAID 10) SSD** (GB)	(1 GB x journal days) x 2	(15 GB x journal days) x 2	(50 GB x journal days) x 2	(90 GB x journal days) x 2
Backups (RAID 5) HDD (2 days)* (GB)	DB x 1.2 x backup days	DB x 1.2 x backup daysx 2	DB x 1.2 x backup days	DB x 1.2 x backup days
Reports (RAID 5) HDD*	See estimating additional disk space requirements section			

* No fast disk needed   ** SSD disk recommended. This value has been multiplied per 2 due to the RAID 10

Languages and regions	cobas® infinity laboratory solution supports multiple languages and regions (international time zones)
User management	• Support LDAP (Lightweight Directory Access Protocol) • Support of level 3 of LOPD (Law of Personal Data Protection)
Security	• The use of firewalls and SSL encoding is recommended • Protection against direct browsing is enabled

User interface
100% browser based user interface on the workstations (clients)
	• Supported browsers*
	  • Microsoft Edge 42
	  • Google Chrome 69
	  • Microsoft Internet Explorer® 11
	  • Mozilla® Firefox® 60 (ESR version) and 38 (ESR version)
	• Client screen resolution – 1280 x 1024
	• Adobe® Flex® plug-in may be required for applications or special graphic software
	* Supported browsers will be updated with each version of cobas® infinity Laboratory Solutions

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cobas® infinity IT solutions client PC requirements

Processor	RAM	Hard Disk	Network	CD-ROM	UPS	Monitor
Pentium Core 2 Duo 2.4 GHz	4 GB	1 HDD 80 GB	Megabit Ethernet	DVD drive	An uninterruptible power supply installation is recommended	At least 1280x1024 pixels with 65,536 colors (min.)

Printers and barcode printers (peripherals)	• Flexible customization of reports (DataVision, FOP) and scheduling of print jobs
	• Print compatibility with any printer, optical pen, barcode reader and document scanner
	• The following barcode printers are supported up-to-date:
	  • Eltron TL27xx
	  • Easy Coder 91 and Easy Coder C4
	  • Intermec 3500, PC43D and compatible models
	  • Zebra SP 10-z, 2746e, TLP 2844-Z, GX 420t and compatible models

Remote service and support	• SIP Service Intelligent Platform (non customer-facing tool that continuously monitors the health and versions of your customer software solution) • Axeda

Additional drivers may be available upon request.
For a complete list of drivers, contact your local Roche representative.

Find out more on
diagnostics.roche.com