

MULTICASH 3.22 – 3.23

RECOMMENDED HARDWARE AND SOFTWARE CONFIGURATION OF THE CLIENT

Hardware

To ensure successful installation and use of the MultiCash program the requirements of the operating system must be principally satisfied.

Client – workstation

We recommend the following **minimum** configuration to provide for correct function of the MultiCash application:

- Processor Intel Pentium III 500 MHz or another processor with comparable performance
- 512 MB RAM
- HDD with standard capacity and rate
- Monitor with resolution of 1024x768 pixels

To ensure **optimum** operation of the program the following values are recommended:

- 2 GHz CPU
- 2 GB RAM
- HDD with standard capacity and rate

Repository for electronic signature

One of the following options can be utilised to store the client's electronic signature:

- Diskette drive (3,5")
- USB flash disk
- Hard disk or shared network disk
- MCC database

Communication

Internet connection - TCP/IP protocol is utilised for communication with the Bank.

It is necessary to permit communication to **port 1350, 1360 and DNS address of the Bank** (or the IP address **multicash.csas.cz** (194.50.240.88 or 194.50.240.216)).

Server

Minimum requirements for server that is intended for network communication:

- 1 GHz CPU
- 2 GB RAM
- HDD with standard capacity and rate, at least 500 MB of available capacity in HDD based on the volume of downloaded data and the number of installed modules
- Monitor with resolution of 1024x768 pixels

To provide for **optimum** operation the following values are recommended:

- Quadcore CPU

- 4 GB RAM
- Disk array RAID 10 with backup feeding

Attention:

In case of network installations containing up to five computers where the server for MultiCash application serves as one computer it is necessary to ensure sufficient size of RAM on this “server” in order to prevent permanent swapping to the disk.

Network environment

- We recommend 100/1000 Mbit network; 10Mbit network is not suitable. In case of large network installations the configuration shall be handled individually.
- Application may behave in a non-standard manner in the Novell – Client environment.

TCP/IP protocol and following permitted ports are required for operation of the MultiCash program:

- 4711, 4712 – to trigger the MultiCash program (communication with the database)
- 443 – between DMZ and Internet for encrypted SSL connection
- 445 – Microsoft - DS
- 139 – NETBIOS Session Service
- 138 – NETBIOS Datagram Service
- 137 – NETBIOS Name Service
- 135 – NETBIOS Name Service

If the MultiCash application on the client side is set up through the TCP/IP protocol at DNS record multicash.csas.cz the Bank guarantees its functionality in automatic regime 24 hours per day, 7 days per week.

Technical solutions of the MultiCash system is designed in such a way that in case of technical deficiencies it will automatically switch the communication of MultiCash client application to the primary or backup location of the Bank which work concurrently in the normal mode.

Software**Client – workstation**

We recommend using the file system NTFS. If the FAT32 is used the name of the user profile in the operating system must not use diacritical signs.

- Windows XP
- Windows XP Home Edition – this version cannot be used for network installation as it does not contain facilities for setting up access rights.
- Windows Vista – to ensure correct functioning of the MultiCash application we recommend only the Business version and higher ones.
- Windows 7
- Windows 8 – we carry out installations of version MCC 3.23.002 to operating system Windows 8 (32 and 64 bit), in CZ and GB version, and we did not encounter any major problems in standard operation. Nevertheless the operation in the Windows 8 operating system is not fully guaranteed as up to now the supplier of application has not confirmed definite compatibility with the stated version of operating system.
- Adobe Acrobat Reader – version 8.0 and higher ones, language version according to OS.
- Internet Explorer 8 and higher ones

Attention:

The above-stated software has to be installed including current updates (Service pack).

Server

File system NTFS is required.

- Windows 2003 Server
- Windows 2008 Server
- Windows 2012 Server - we carry out installations of version MCC 3.23.002 to operating system Windows Server 2012 and we did not encounter any major problems in standard operation. Nevertheless the operation in the operating system Windows 2012 Server is not fully guaranteed as up to now the supplier of application has not confirmed definite compatibility with the stated version of operating system.

If you intend to use the MultiCash software in the Windows 2008 Server or Windows 2012 Server system, please check the following areas in which significant changes were made, especially points 1, 3 and 5:

1. User Account Control (user account management) – in some cases the UAC has to be set differently or completely switched off).
2. Network configuration – in case of erroneous network configuration the database service will run but the clients cannot be connected to the service.
3. Standard access rights for services were changed and this fact has to be taken into consideration.
4. Firewall in new version – problems may occur when the basic set-up of FW is changed.
5. Improved function REMOTEAPPS – the new version resembles Citrix, and this brings in changed requirements for configuration.

Attention:

The above-stated software has to be installed including all updates (Service Pack).

SUPPORT OF MULTICASH SERVICE

Employees of MultiCash Service Support are ready to answer all your questions related to the Česká spořitelna, a.s. MultiCash service on workdays from 7:00 to 18:00 o'clock at the below stated telephone number or e-mail address:

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