Konica Minolta Business Solutions U.S.A., Inc.
bizhub PRO C6501 Color Digital Press
Security Report

HDD and RAM Security

Data theft is the leading concern by end-users, corporations/business' and manufacturers alike. One particular fear is that sensitive data can be extracted from the MFP Hard Drive (HDD) or RAM, either by accessing the MFP or removing the HDD or RAM and extracting the data after the MFP has been discarded. These concerns have been addressed for each technology, HDD and RAM.

In Summary:

When the bizhub PRO C6501 is powered off
A) All image data in RAM will be eliminated (no back up is possible)

B) Partial image data in the HDD could remain, however, on the bizhub PRO C6501 the HDD can be set to automatically erase any leftover data with random characters. This mode can be set from the bizhub PRO C6501's Control Panel

C) The bizhub PRO C6501 can be set to security strengthen mode. When this mode is enabled, the HDD can be protected with a Lock Password. The password can be set from 8 to 32 alphanumeric characters. If the HDD is removed from the machine and placed in another host, it will not turn on unless the password is known.

At the time of power up, the bizhub PRO C6501, commands the HDD to authenticate and unlock by using the lock password. The HDD confirms to be the valid host and unlocks to make reading/writing data possible.

D) If necessary, the hard drive can be formatted.
How to format: In order to format the HDD, the drive needs to be removed from the main body. Once formatted, all stamp or overlay data will be deleted. The HDD Lock password has to be turned off before removing the drive from the main body.

RAM Security

Random Access Memory, there are 3 types of RAM currently being used by bizhub MFP's:

- Volatile RAM
- Non-Volatile RAM
- Flash Memory

Volatile RAM

Typically Volatile RAM would be:

- Local Memory; work area for CPU – No image data
- ERDH Memory; temporary image buffer

Data that is written to Volatile RAM is held while the power is 'ON'. The next page of a subsequent job may overwrite the data held in this type of RAM. Once the job is printed the data is ready to be deleted from RAM. Also, if the power is turned 'OFF' the data in Volatile RAM is deleted.

Volatile RAM is secure, if RAM is removed after an engine is powered OFF all the data on that RAM chip would have already been deleted. It would be impossible to remove the RAM while the engine power is ON. The only other way to possibly extract data would be an indirect route or a security hole. These access points have been evaluated and tested by a 3rd party security consultant. There are no indirect routes or security holes.

Non-Volatile RAM (NV_RAM)

Typically Non-Volatile RAM would be:

- Counter Data
- Job Settings
- Utility Settings

The data written to Non-Volatile RAM is not considered as confidential or private. This data is not cleared when the power is turned 'OFF'; unlike Volatile RAM.

Flash Memory Stores

Typically Flash memory is utilized with:

- Machine Firmware
- OP Panel Data

Flash Memory is embedded on an MFP circuit board and cannot be erased. The data stored in Flash Memory is not considered confidential or private.

Battery Back Up

A battery located inside the machine retains NV_RAM.

BIOS

Where is the BIOS located? Can it be locked out with a password? If yes, please provide the command sequence.

The BIOS is contained in the flash memory program, it is not compatible with Windows.

The bizhub PRO C6501 system runs on an embedded Linux platform. The bizhub PRO C6501 Series consists of hardware and bizhub PRO C6501 Image Control Program. The hardware includes bizhub PRO C6501 Series main unit, DRAM/HDD section, operation panel, network

card, and various interfaces. **The HDD is an optional unit (not equipped as standard).** The DRAM/HDD section stores temporarily document data. The DRAM is not accessed from outside and the temporary stored data in DRAM is deleted by turning the power off. As mentioned above, the bizhub PRO C6501 Image Control Program operates on an embedded OS (Linux-4.0).

NOTE
The bizhub PRO C6501 has the ability to fully operate without the Main Body HDD. Customers may choose to install that HDD. Therefore, none of the security risks associated with the main body HDD exist for this bizhub PRO C6501 configuration.

Description of Equipment Offered

Model: bizhub PRO C6501
Platform: KMBS proprietary
RAM: Volatile, Non-Volatile and Flash Memory
Interface: Ethernet 10/100 Base T, Parallel IEEE 1284
OS: Embedded Linux

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