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## The Generating Information Controlling Main Computer that uses a Secondary Computer for Information Exchange

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The Generating Information Controlling Main Computer that uses a Secondary Computer for Information Exchange.

## ABSTRACT

This paper describes a method to control the information that generates within a computer system. The main computer system exchanges information with the outside world by utilizing a secondary computer that acts as an interface. The total system consists of the main computer, the secondary computer and an optical - visual information exchange mechanism. When the main computer requires to gather information from the outside world through computer networks, the information in the form of byte streams is supplied to the secondary computer first. Secondly, this information is transformed from byte streams to visual information in the form of pixel patterns. By utilizing the optical – visual information exchange mechanism, these visual patterns are fed into the main computer. upon receiving the visual information, the main computer will interpret them to information which includes both data and instructions according to a pre-configured set of mechanisms. This generation procedure of information after interpreting from visual data enables the main computer a greater control of deciding which types of information in the form of instructions and data should exist within the computer. whenever the main computer requires to send information to the outside world through computer networks, the main computer transfers that information in the form of visual data to the secondary computer. The secondary computer upon receiving this visual information, will transform them into byte streams which will be sent to the outside world through computer networks.

## KEYWORDS

- Main computer
- Secondary computer
- optical – visual information exchange mechanism

## BACKGROUND

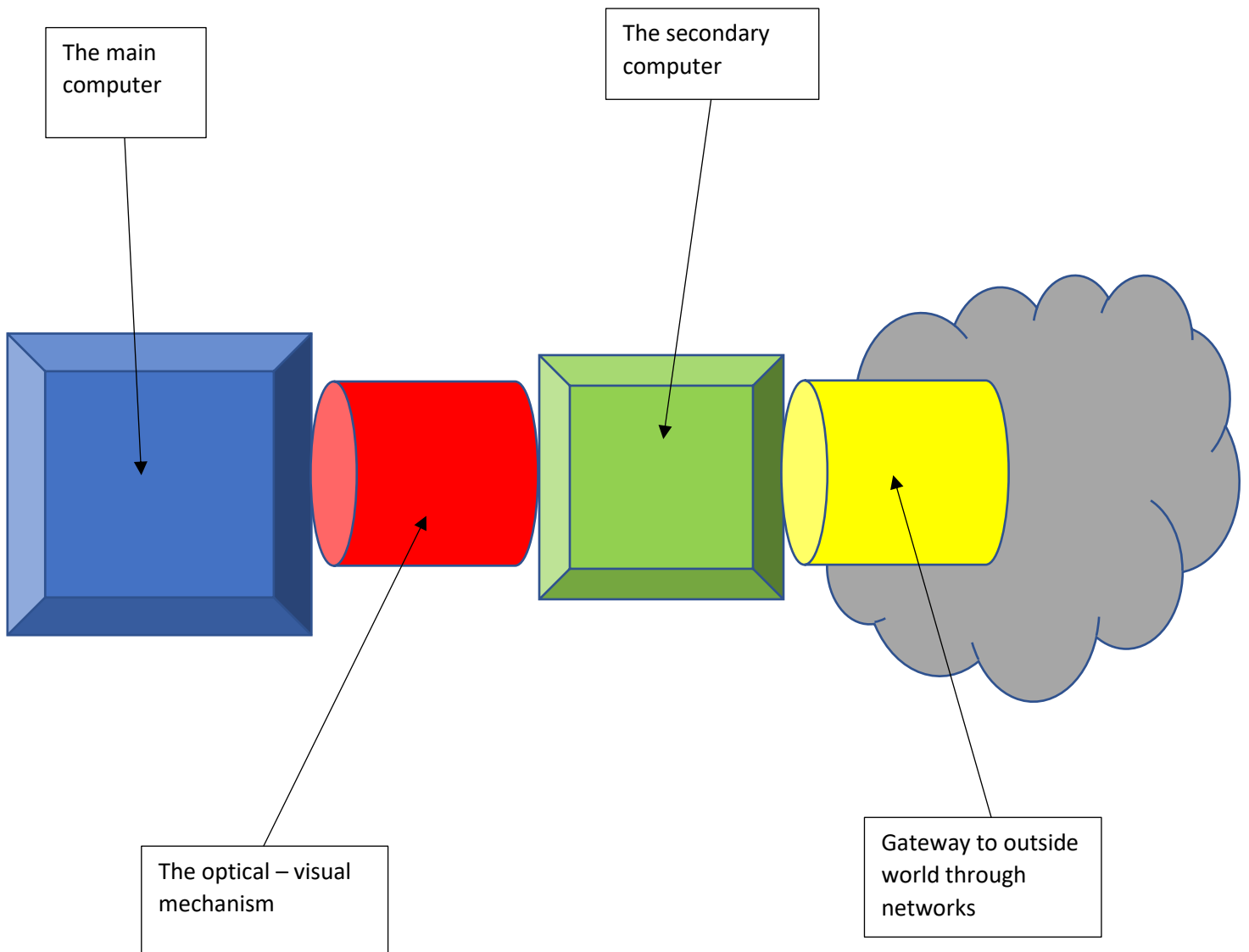
Networked computer systems play an important role in the today's society. Malware that is sent through the networks to computer systems could cause harmful consequences. Nowadays, there are many defenses applied to cope with the malware threat. Nevertheless, defending against malware remains a challenging matter.

## DESCRIPTION

This paper describes a method to control the information that generates within a computer system. The main computer system exchanges information with the outside world by utilizing a secondary computer that acts as an interface. The total system consists of the main computer, the secondary computer and an optical - visual information exchange mechanism. The optical -visual information exchange mechanism utilized in this method was demonstrated in the multiple information exchanging system (Abeysekera 2021).

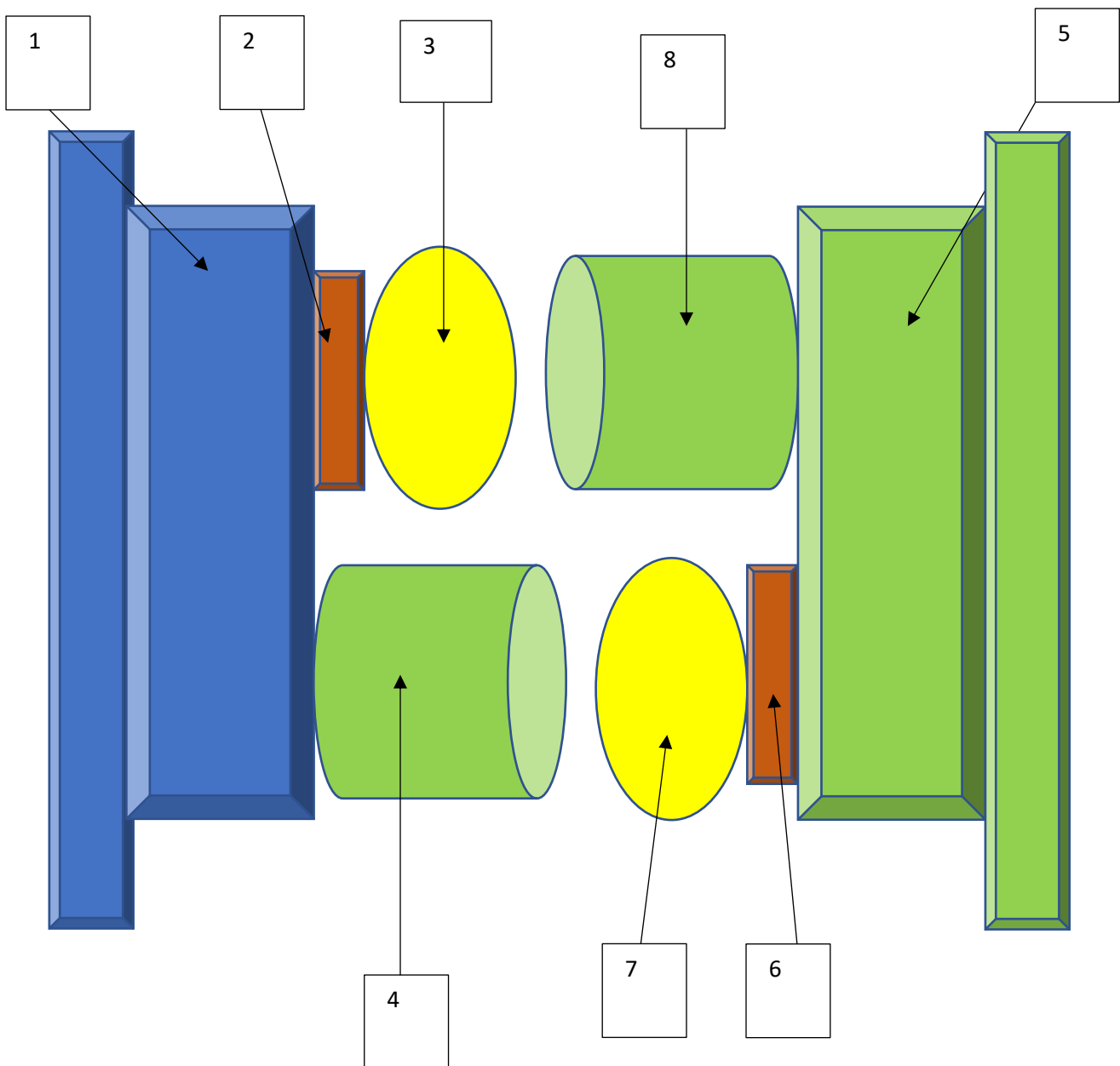
The total system is given by the diagram below.

Diagram one: the total system



The optical -visual mechanism is given by the diagram below.

Diagram two: The optical -visual mechanism



- The description of the optical -visual mechanism is given below.

Component one

The supporting structure of the main computer part.

Component two

The video display of main computer

Component three

The focusing lens of the main computer

Component four

The video display capturing camera of main computer

Component five

The supporting structure of the secondary computer part.

Component six

The video display of secondary computer

Component seven

The focusing lens of the secondary computer

Component eight

The video display capturing camera of secondary computer

- The structure and function of the total system is described below.
1. Main function one: generating information using incoming byte streams from outside world through networks after interpretation.
    - The information in the form of byte streams enter into the total system through networks from outside world.
    - These byte streams enter inside the secondary computer.
    - The byte streams that entered into the secondary computer gets transformed into visual information in the form of pixel patterns.
    - These pixel patterns will be displayed as a video sequence by the video display of the secondary computer. (Labeled as component six in the diagram two)
    - Also, the video display of the secondary computer (Labeled as component six in the diagram two) will be supplemented by a focusing lens (Labeled as component seven in the diagram two) in order to focus the video sequence feed at a closer distance.
    - The video display capturing camera of main computer (Labeled as component four diagram two) captures and records the video sequence feed of the secondary computer's video display. (Labeled as component six in the diagram two)
    - The main computer analyzes this captured video sequence feed and interprets the pixel patterns into information.
    - This information could include both data and instructions.
    - This interpretation process is performed according to a pre-configured pixel patterns to information decoding mechanism.

2. Main function two: sending information to outside world as streams of bytes after interpretation.
  - The main computer interprets the information required to be send into visual information in the form of pixel patterns.
  - These pixel patterns are displayed as a video sequence by the video display of the main computer. (Labeled as component two in the diagram two)
  - Also, the video display of the main computer (Labeled as component two in the diagram two) will be supplemented by a focusing lens (Labeled as component three in the diagram two) in order to focus the video sequence feed at a closer distance.
  - The video display capturing camera of secondary computer (Labeled as component eight of diagram two) captures and records the video sequence feed of the main computer's video display. (Labeled as component two in the diagram two)
  - The secondary computer analyzes this captured video sequence feed and interprets the pixel patterns into information in the form of byte streams.
  - These byte streams containing information will be send to the intended destination or destinations of the outside world through networks.

## APPLICATION OF THE METHOD

By converting all the incoming byte streams into visual information in the form of pixels by the secondary computer and then interpreting all of them as either instructions or data by the main computer, using built in software gives greater control of what instructions should be generated and how they should exist inside the main computer. In this method, with the absence of any faulty error in the software of the main computer, there is no opportunity to generate without knowing to the main computer, instructions that would cause any harmful effects such as unauthorizedly modifying files and deleting files.



## REFERENCES

abeysekera, punarjeewa, "Multiple Information Exchanging System", Technical Disclosure Commons, (July 26, 2021)  
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