

## Store Software

The store has two POS. It includes the following hardware: two computers with Microsoft 10, 3 iPad, two cash drawer with customer display, four barcode scanner and a receipt printer. The network includes a router, using either Ethernet cables with RJ45 and Wifi.

The company computer uses the Primavera POS software using MS-SQL Server. This POS is linked to the ERP of the company.

POS machine/cash register is the most significant component of your POS or point of sale system. It's the computer that runs your POS system software. It's also known as a cash register or POS machine. Employees use this hardware to record sales transaction and print receipts. It also allows the manager of the store to manage inventory, staff, and customers. A cash drawer stores cash, coins, cheques, and even receipts if you want to. It helps organise and provide security for your valuables. When you finish up a sales transaction, the receipt printer sends a signal to the cash drawer, triggering it to open, so you can store your money and give change. It's essential to keep the cash drawer locked after your shift closes. Only the store manager accesses to the cash drawer key, limiting the access to the cash. This solution helps reduce the potential for in-house theft. A receipt printer is an essential part of your point of sale system.

The receipt printers may work as thermal, LAN (connects to through wireless router via ethernet) or Bluetooth receipt printer. A POS barcode scanner/barcode reader reads printed barcodes on products and sends the data to the POS terminal. A barcode includes product information, SKU number, and other fields. Using a barcode scanner helps the employees to speed up the checkout process and keeps accurate track of all the inventory. There are two types of barcode scanners: 1D (one-dimensional) barcode scanner – only able to read linear, horizontal barcodes (traditional UPC barcode), 2D (two-dimensional) barcode scanner – able to scan and read QR codes and barcodes with dots, patterns, and shapes like squares or rectangles.

As a consequence of COVID-19 pandemic, managers are analysing the possibility of implementing e-commerce solutions. One of the possible solutions is using a service from Shopify or Amazon. It is also possible to have a web server. In this case, there are two possible alternatives: having an in-house system or a hosting service or a VPS (virtual private server). In the case of VPS, the client is responsible by install all the infrastructure, including operating system, DBMS and all compilers or interpreters. On the other hand, the web hosting service includes already installed software, like Apache or Nginx web server, MySQL and PHP. It allows the user to install some software like Magento, Woocommerce or Prestashop among many others. It is also analysed the possibility of implementing CRM. Some CRM solutions are Zoho CRM, Sugar CRM or Primavera CRM. While Zoho CRM is a service, Sugar CRM is open-source software that may be installed in the hosting service. Business intelligence software solutions are being evaluated. Pentaho, PowerBI and Tableau are possible alternatives.

The new CIO said that “the company should use IIS, as long as it is the most used web server. It is expensive, but it has more safety than the other systems” The CEO said that this information is not correct. “The price is much higher. IIS is not better in what concerns security and security depends much more on the usage of other components like antivirus and firewalls, and especially from the applications. In fact, often, applications have SQL injection problems”. The CFO suggest that contracting a service may be better, especially if the purpose is testing a

solution. The company has no experience in maintaining webservers, so solutions like Amazon or Shopify are the best alternatives.

1. Who is telling the truth? The CEO or the CIO? Justify.
2. What is the purpose of e-Commerce, CRM and BI?
3. What are the best solutions, according to your perspective?