Thin Thick Client
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1. PURPOSE

The Purpose of this document is to provide the differences between Thin and Thick Client in an Enterprise Architecture

2. DIFFERENCE BETWEEN THIN CLIENTS AND THICK CLIENTS

When discussing the concept of clients and servers in the context of computing, it is crucial to determine the distinctions between thin and thick clients. Thin clients and thick clients are two models of client-server structure that have many differences that define their nature and application. Thin clients do not possess their own processing and data management utilities, instead depending on a central server and as such affords easy management and more security.

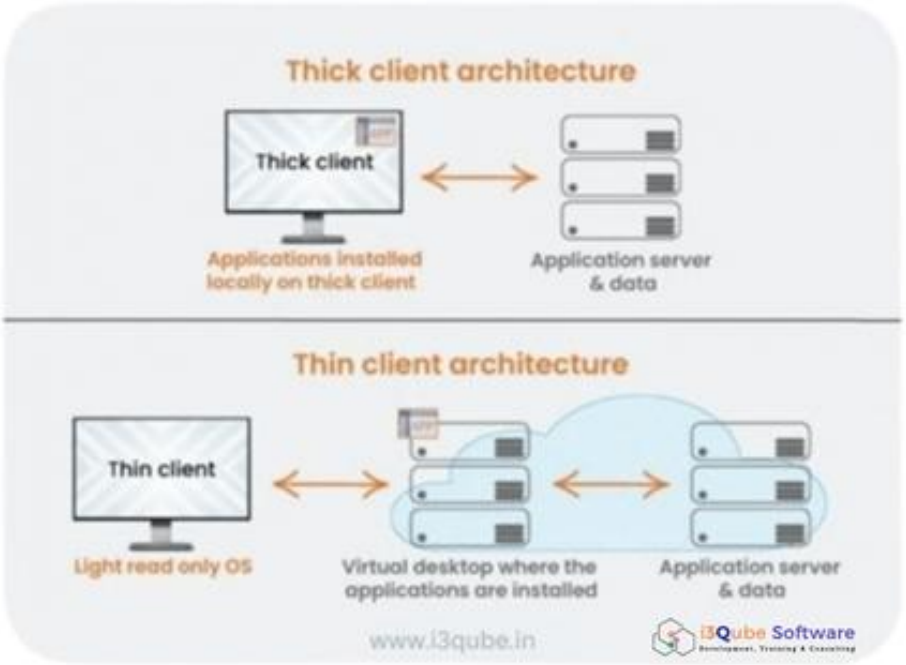
While thick clients are somewhat more autonomous and endowed with their processing capacity and software, thus offering more flexibility, they are also likely to pose a higher threat to security. In this article, you will discover what sets thin and thick clients apart so you can make the right choice for your unique situation.

2.1. Thin Clients

A thin client is a computer system that runs on a server-based computing environment. They work by connecting to a remote server-based environment, where most applications and data are stored. The server performs most of the tasks like computations and calculations. They are more secure than thick client systems when it comes to security threats. In Thin clients, the system management is much easier as there are centralized servers. With the help of centralization, there is optimization of hardware, and maintenance of software is also comparatively easier.

2.2. Thick Clients

A thick client is a system that can be connected to the server even without the network. Thick clients are also referred to as heavy or fat clients. Thick clients are not dependent on the server's applications. They have their own operating system and software applications. They have high flexibility and high server capacity. Thick clients have more security threats and are less secure than thin clients.



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2.3. Difference Between Thin Clients & Thick Clients

Factors	Thin Clients	Thick Clients
Installation	Thin clients have browser based installation.	Thick clients are installed locally.
Type of devices	Thin clients are used by handheld devices.	Customization systems use thick clients.
Processing Type	In thin clients there is complete processing on server side.	Thick clients make use of computer resources more than server.
Deployability	Thin clients are easily deployable as compared to thick clients.	Thick clients are more expensive to deploy.
Data validation	The data verification is required from the server side.	The data verification is done by client side.
Communication	In thin clients continuous communication is required from server side.	In thick clients communication is done at particular intervals with the server.
Interfacing	It cannot be interfaced with other equipment.	It is robust as compared to thin client and it can be interfaced with other equipment.
Security	It has less security threats.	It has more security threats as compared to thin clients.

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2.4. Conclusion

There are several considerations that make it possible to distinguish between thin and thick clients, including security, deployment costs as well as the necessary processing power. Low end of the PC spectrum has relatively small data storage capability and centralization of processing which makes them ideal for protection of data. On the other hand, thick clients offer more control and autonomy which may be strongly needed for other applications if a lot of local processing is needed. The awareness of these differences benefits the organizations to make the right decision on the IT distribution of their firms to fit the needs of operations.

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