██ Inventory Database Proposal

The goal of this project is to create a database that stores information about the ██████ █████ office and its various computers, desks, employees, display TVs, printers, networking ports, conference rooms and their relationships, as well as any other trackable equipment that can be added later.

The database would then make it possible to automatically keep track of:

* What version of Windows each computer is on
* The last time the computer was logged into
* The last time the computer was connected to the internal network
* The last person logged into the computer
* Which desk each computer is at (without having to manually update)
* What content display TVs should be showing

This in turn would allow the helpdesk agents in the ██ office to perform tasks more easily such as:

* Make sure computers stay up to date
* Find a computer when only the computer name is given
* Prevent computers from falling off the domain and needing reimaging
* Determine who last had a computer that is no longer on the company network
* Figure out if computers have been turned off or have stopped working without requiring a user to report an issue
* Ensure display TVs are showing correct content

These lists may not be all the database will be capable of, other possible uses may be uncovered in the future.

Originally, a portion of this information was being kept in an excel spreadsheet, however the breadth of information stored and their interdependencies have necessitated expanding into a database.

To efficiently collect the information required to maintain the database, a script can be run periodically on the computers that will store the information to a file at a central location. The current issue is that when attempting to import the data from the file into the database, ██████ blocks the action as a script. Once the information from the computers can be imported to the database, reports can be automatically generated as needed or on a daily basis with the information necessary to perform the preventative maintenance measures described above.

The database would regularly be importing information from multiple sources, primarily the computers themselves and the AD. Also, in order to know which desk each computer is located at, a method will be required to query the ██ switch to determine which MAC addresses are at which switch ports. That information, combined with how the switch ports and network port numbers relate plus which desk each network port is at, will keep an updated feed of which computer is at what desk.

Some information would need to be added manually, such as PCI tags or network port numbers. Some has already been entered previously, others I am waiting for other parts of the database to be completed before adding them in.

Overall, the completed database should provide a continuous stream of useful information, reduce the time needed to complete certain tasks, and eliminate certain causes of downtime for the agents and reps taking/making calls in the ██████ █████ office.