Conflict between Applications

'A project report submitted in partial fulfilment of the requirements for ITT Dublin's Bachelor of Science Degree (Ord.) in IT Management'

Word count-9028

Abstract

The Report consists of the confliction between two applications, this was due to the application unable to update due to the antivirus not allowing completing the operation. Antivirus is a core fundament to have protection your environment but when you need to install any other application this should not be difficult. The difficult process was to find the correct way to resolve the issue in a timely manner for all workstations in the company.

TABLE OF CONTENTS

Chapter 1 – MWG Host Company for intern.

My Web Grocer is Consumer Packaged Goods platform provider for some of the top brands are the globe, the multinational company which provides online commerce software based and digital media services to allow connecting customers and products together to more than 90 grocery store companies this helps in the ease great ideas to be streamlined. The fast movement of growth in the online grocery shopping my web grocer is the front for providing this service.

The company headquarter is located in Vermont but the organisation have European headquarter in Dublin. My web Grocer offer platforms for the online ecommerce grocery companies that would like a presence online, with their help they can expand and reach more shoppers that ever before. After studies show that more and more people have gotten used to shopping online this is due to the high number of shopper's hectic lifestyle or the simplicity of getting shopping delivered to the house. As we move forward in this digital age more and more services are available. Grocery ecommerce can be complexed but with the aid and design this is made simple and easy to use for any company under the umbrella from my web grocer customer have taken an advantages of the services provided by the organisation to improvements that can help the adverse effect in sales.

The company has revolutionized the way we she online grocery shopping with the aid, entirely integrated to completion of the all aspects of the customer lifecycle from start to finish without overhead or delays, software and application ready to roll out from package to get to the market faster and quicker to the available market, the completed platform is modular as the business needs grow the solutions can grow together without any obstacles, the platform is fully customizable to for any specific requirements. The service offered to customers is personalized to the experience that is need to fulfill ever need and aspect to reach in store and beyond. Integrated systems will join customers and

providers together with the help of unformal platform that is second to none. The main goal for my web grocer is to provide individual personalized experience and to develop relationship with both parties included.

This is the reason fully released feature of modular platform that can do everything that the clients need without the delays and complications. The simple design is and user experience that can definitely help with profitability on a larger scale, Using it to enable a complete experience starts immediately the minute customers starts to click initiates interact with your products and brands online from deciding their each meals to online screen to shopping pages and will certainly continue through to in-store shoppers and online visits. My web grocer leader in solutions in digital shopping having over 3000 e commerce views on products per second holding the attentions of shoppers, leading in innovations to a greater length of providing newer solutions to market and moving onwards and upwards to highlight the need for online presence for the top brands that use the platforms on daily bases. The platform is quite simple to use but behind the scene all the work that has been completed by so many interactions hands to deliver something very simple to use for the customer, always thinking of the customer in the limelight and providing the best possible solutions.

With the right expertise that are on offer and the right partners put together a great combination while acknowledging the path to online purchase, putting technology and partners can be difficult at times but with the platforms designed to increase in online and in-store purchases, with the correct platform you can connect to the right customers at a bigger scale than possible while inbuilt reporting feature made conventional to the requirements and specifications.

My web grocer works with hierarchical design where with direct interaction and chain of higher to lower part of the organisation, top level management make the important decisions for the company, then his is passed down to the other stages of the company for approval that need to be made, with this each stage of the approval section the can be made until the final decisions are made. This design maintains the decisions making to the higher

managerial positions controls are better that having everybody making decisions this can be advantageous.

This structure works well as each section can be independent and not interfering with other aspects. The dev-ops team consists infrastructure Engineer and systems engineer working within the team I will gain understanding of how the dev-ops section operates, the infrastructure engineer will be my mentor for the site running and operational to shadow and learn about networks structure how the switches, router and networking. In relation to having administering servers, the department is busy form day to day as new issues arise within the office environment. While shadowing the network engineer we have replaced routers and switches and upgraded the some of the racks that are installed.

While the day to day responsibility of the engineer is to see the performance of the network and how LAN and WAN (fig.1) are operating. While monitoring make the best decisions on how the networks are running, securing network connectivity enforcements of any policies that are in place making sure nothing from the outside can access the network. Managing any projects that are currently running in the life cycle of completion and to maintain deadlines for the project, My role is to assist team members with any issues that arise and research if any problems that cannot be solved immediately from the issues board.

Fig. 1(wide area network are connected to local area networks)

I will be placed within the support tickets dashboard and will need to keep up to date for any tickets that are allocated to me, in the past week I have resoled many tickets that have been assigned to me to completion some of the support tickets are easily resolved than others. However I'm tasked to get them resolved, when I'm gotten stuck on a task my mentors help me to resolve and give me understanding how to complete the task. While being trained in I'm given some administering right to the tickets that I'll be working on some of the key area will be setting up users and computers, making sure the users have are updated with any requirements that are needed. Deploying new pc to users installing software and hardware as needed. While understanding looking at the new projects that will be assigned as the time goes on in this placement, Will also be tasked to keep the printers in the office operational and if an issue occurs to resolve in a timely manner without delay to users.

The main objectives for the dev-ops (fig.2) team to have the organisation working at the best performance at any given time. This is an agile way to get the developers and operations working closely together for the whole lifecycle of the productions on stream at a current time. Currently the team are working on day to day issues that may arise and to have the issues resolved at a given time line working closely on the projects. With continuous discussions with develops before any final stages can be completed. This technique is a wide range from the use of source control to tests to combine an agile developments and process.

Figure 2. (Life cycle for the dev-ops from start to finish)
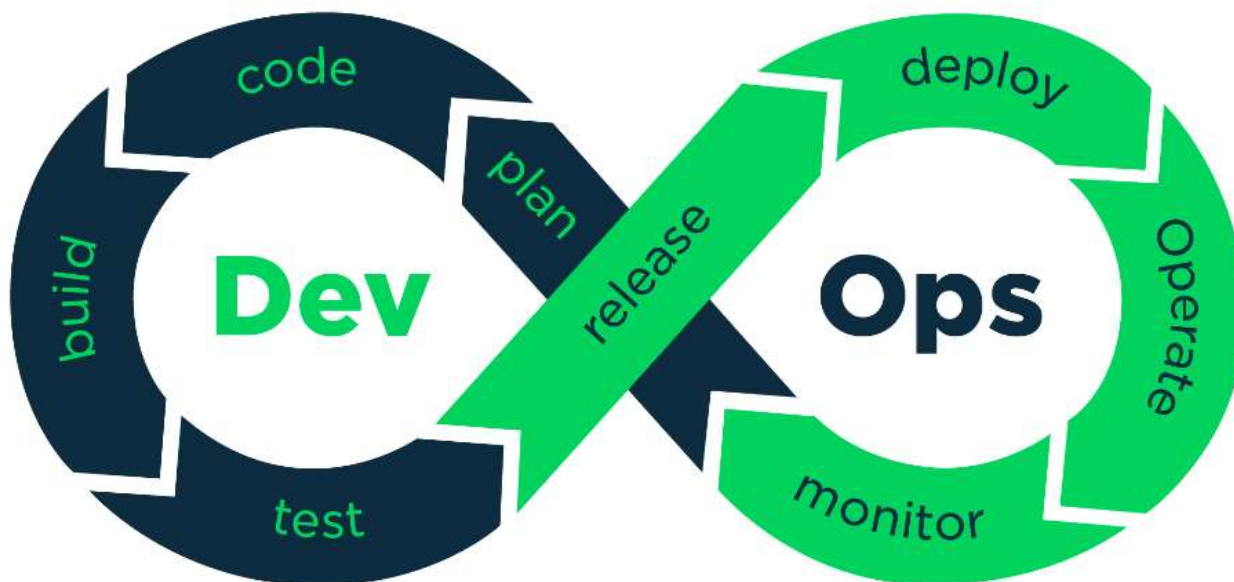
     This working together while trying to make the best performance for the entire team, The purpose Development and Operations does not differ from between different system administration co -subsided-disciplined in the operations is completed covered terms for system admin engineer, sys admin can control the administration values, operations team and staff , before release the engineers, Database admins, networking engineers help while the network is in operation, security professionals staff ensure the security is intact and without flaws ,various different subsides of disciplines and job roles are always in the same fields. Developments is used as short way for developers that are in the particular teams, however really in practice it is more wider and in most time and means "everyone involved in the development of the products, which can include all the aspects of the Product, Quality Assurance , and other various of disciplined teams that are on the same project.

     My role is to provide any help necessary for the team to complete the as discussed with the team of Dev-Ops my role will be exposed to all aspects of the organisation in the

start I will be looking after the running of day to day operations with users and computers as I progress on this internship I will be tasked with other challenges along the way with the tem and understand the technologies used by the company and help as I am needed. Working within the team I will be exposed to server admin and administer in some low level server interactions, this is due to the production environment need to be maintained by the official administer. However will not be limited to shadowing and gaining understanding how the company servers are maintained on a day to day bases along with watching the outcome of each server and how they are set up. With this knowledge I would have better understand how a large scale operations work.

In the operations team everything needs to be tested and tested before deployment in the dev-ops can execute any live level updates. While shadowing the team members for the past 3 weeks I have seen the many of the tasks are completed remotely by the team and not always requiring physical touch. Many occasions the time is spent looking at graphs and alerts and analyzing the information and solving any issues that have risen and resolving without the delay in in time frame. Alerts and logs are used on a regular base to make sure the performance this is to eliminate any outages, there are many servers that depend on the team to have operational at each given time and some instances can look an easy fix but can take a lot of time to complete.

One of the services that are being used at the moment to Azure and hoping that the new platform may help with the how the administering is done in the cloud, Like many cloud providers everything can be accessed by the use of web interface and the environment can be easily accessed anytime when needed. Using cloud service can help the company in reducing costs and these can be used in other resources, while moving forward with cloud service many of the initial process can take up time but once up and running we can take lot of useless time wastage. Having Access to the Azure dashboard we can see all the Virtual machines running and the health states that are associated with each Virtual Machine. The main projects that the company has taken is to have all the ability to test be done and be completed on the cloud from start of production to final live releases to roll out to general public. This strategy change will help in the workload for each department on the wider scale and help to eliminate any issues that can arise, once the completion to

Azure has completed the process will be easier to manage by the dev-ops team, however some aspects of the company will be managed for the office infrastructure. Strategies have changed as time goes by but with the current strategy to use Azure as the cloud based would be great advantage for the future in deployment and testing for new platforms that are designed by My Web Grocer. The company will greatly benefit from the new azure platform and so many day to day tasks can be taken away to concentrate on better enhancements of the web applications that are developed, when the placement is completed I would like to have the knowledge of how the azure platform words to the everyday need for My web grocer while there are other strategies in place for other projects the Dev-Ops team will be heading this projects after vigorous test.

Chapter 2 – Intern's tasks

The below is some of the tasks that I have been for the past months and these tasks have be completed by me with the help of my mentor.

- Setup New PC and old, Adding to domain
- Setup VPN
- Setup printers
- Installing OS, software
- Set Up MAC
- Administer using RDP
- Office Inventory Documentation
- Shadowing Mentor Database, Networking, DBA, Server Admin
- Weekly Scrum Meetings

Setup New PC, Adding to domain- this task involved in having to set up the PC with new Operating System and having to add this to the domain the users will be working on, once the PC was set up with usual software requirements as each person may have different specifications. Some developers are given Latest workstation the old are formatted and given to another user that may have legacy OS. This was due to new employees stating and needed new workstations. The work carried out helped me understand how to create a new image on a HDD and the process it takes to create.

Setup VPN on workstation this is used for each person as they are able to remotely connect to the network using the VPN tunnel for security measures, all the traffic sent and received over the network is encrypted, this works as secured network for any user using VPN once the tunnel is created all information can only be point to point and with the security in place nothing can be transferred. This is used for employees that need to work form a different geographical location with this in place the work can be continued without delay. Many of the time the VPN and token used may not always work. This has happened may time that token may not be used as the user has not completed the registration correctly once they can delete then the VPN can work. Fig.3

Fig.3(How VPN in work to connect users from a remote location)

Setup printers-as per office requirement the printers in the building needed to be upgraded, the upgrade included 5 advanced printers installed and networked and testing to make them available to every location, when the printers were installed they had to
Be connected to the network and connect them to the servers and have them able to share them to other users. I was tasked also to keep the cartridges up to stock levels and any printing needed and have the used cartridges to be collected by recycling companies.

Installing Operating System, OS software on current workstation as they had the older Operating System, the process involved me making a cloned copy of the workstation and reinstalling after the upgrade. Once the image of the workstation as completed latest OS can be installed and have the PC back to its original state, this was interesting as I would never have done this in a large scale help me understand the work that goes into deploying any old or Latest workstations.

Fig. 4.1(various operating systems that are installed during internship)

Set Up apple MAC devices as I have never been exposed to this, It was a learning as the OS is completely different form the traditional windows OS, the installation of the device was quite simple and after sometime testing the device it was completely different to use and was difficult trying to use the MAC after being used to Windows, after some I did get the hands n with this and

could easy navigate on the MAC and adding this to the domain and able to troubleshoot as some small issues occurred as printer setting and adding users was the main Duty.

Fig.4.2(Apple IOS installations one of many tasks)

Administer using RDP this task included me having to remote into another location to administer the updates that needed to be completed on the workstation, task was quite good and learned that the most of the work can be done sitting at your desk and work remotely and administer workstation with ease and I was happy as this was real life scenario that I had practiced using VM in college for labs in some of the modules.

Fig.5(RDT connection screen before connecting to remote PC)

Office Inventory Documentation was another job that was given to make most current updated list of all the office workstation and screens that are allocated to each user, I needed to gather information on service tags number and document it on excel making sure the service tag number correspond with the user.

Shadowing Mentor Networking, Database, Server Admin at intervals when the mentors had the time they would allow me to shadow them and see the real life day job that is required, I shadowed the networking aspect of this as we configure new switch in the server room using command line to enter on the terminal this was interesting as I did know some of the commands

being entered from my previous Networking modules and could understand the process of the configuration.

Database was good as my mentor showed me how many databases are used and for each section database is allocated for testing and production environment and how easily they can be administered as they are needed, server admin this was all completed using remotely to other locations including the data center and server rooms in the office and checking the health of all the core components of the company. During the time of shadowing the mentors I did realise the module undertaken during the course did help me understand the real working environment.

Networking module in the course helped while the network engineer would configure the switches and router I could understand the configuration that were entered and how the networks are connected, having to see network racks how the Switches are connected to each other and how the each port need to match to the port number they need to be mapped to at the physical location. Understating of VLAN was beneficial as some of the printers and other devices are connected to them. IP addressing schemes that are deployed made up and how each subnet connects to other locations. I helped connecting on of the routers that needed to be replaced for new unit in the main office.
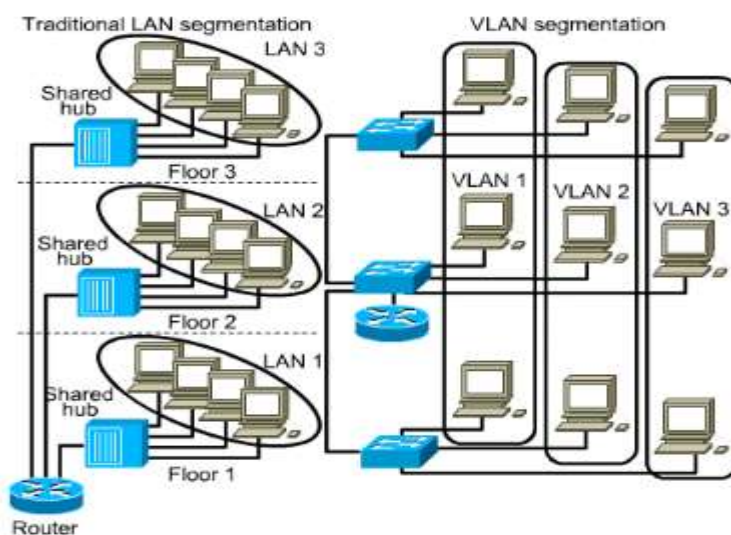

Fig. 6(Networking, VLAN how these 2 independent connections are connected)

Database Scripts that are run on behalf of the other users when this was been tested, the Database module I could understand what the script was accomplishing, the queries were are

complex and need to be executed with Database module it help me understand how the queries are run and the results that are returned, most off the queries are executed in MS sql but some of the commands are similar.

Weekly scrum meeting related to the agile methodology that the organisation follow with what each part of the operations team handles day to day issues that may arise in the organisation with each meeting it helps to iron out any issue that can be resolved and new tasks that can be started. With this method every aspect of the scrum is outlined and worked on to completion that was each scrum can be assessed with the work carried out if any issue Any arise this need to be addressed in the scrum meeting and what can be done to be completed.

During the time I was also invited to the weekly scrum meeting within the team to see the issue and how I have progressed each week with the tasks allocated to me and was there any task that I was unable to complete, overall how the week was and going forward what jobs I have been taken. Overall my experience is great within the time frame that I'm currently in as the internship goes further I will gain more knowledge and the modules undertaken during the course has certainly helped me understand the role of Dev-Ops in the organization.

Some of the modules that have been covered in college have helped me understand how dev ops work and the role that this plays in the organization as this agile method was discussed in college. As each team member needs to pull their weight or the whole team will suffer from inactivity form other members of the team. Having this in place the scrum can help you determine how the project is being fulfilled to current time frame and if there needs to be adjustment.
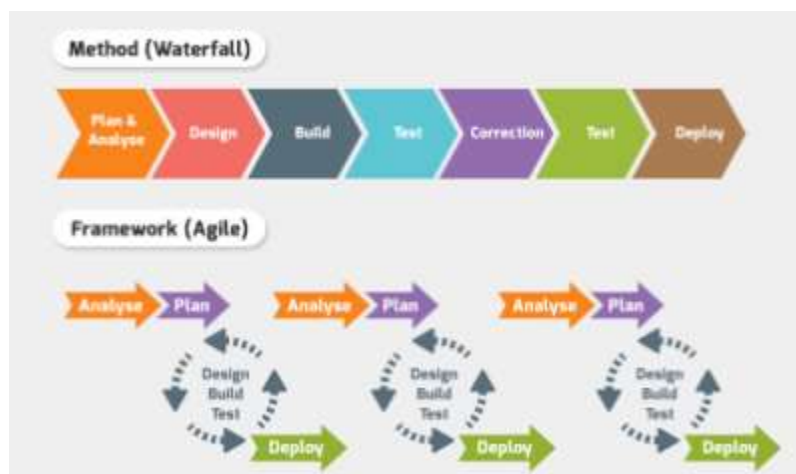

Fig.7 (Lifecycle of the Agile framework making plan, design and deploy efficient)

Virtual environment that has been created by the company where all the servers can be managed, the computing module was beneficial as some of the virtual machines we have worked on in the labs, the PowerShell commends helped me in when getting the seral number of workstation to log into the office inventory list. Each Virtual environment is listed in the sever room with numbers to know exactly where eth physical location of the server. Many of the servers are running different types of operating systems. With having virtual machine an help the company cost level low as the virtual environment can easily be managed and replicated and less complicated as no needed of new hardware to be installed on location.

Having studies some of the modules in college has certainly been a big factor of help me the understanding of actual real life scenarios can be better in the future if the issue occurs, knowing some of the module and practicing the material from the curriculum has been an advantage on the internship learning. The internship and the studied subject like Networking Server admin, Database queries and knowing before had what is happen was a great advantage for me to be able to work on some of the tasks that were given to me.

Chapter 3 – Conflict between Applications

(Windows 1709 Update/McAfee Issue)

In this chapter I will discuss the project that was assigned to me while I was on work Placement, at start I thought this assignment would not take long as looked simple to do. The project was to update the entire workstations within the organisation and needed to be updated with the new windows update. The update has been an issue due to the fact it's not able to finishes as the Antivirus as conflicting with update this can be Positives as the antivirus will not allow any foreign software to be installed. The windows 1709 update included some of the features listed below for performance and users but this was not really an update this was in fact a new operating system features that need to be enhanced when you update Microsoft products never knowing the feature that are installed. Not all the updates below had the conflicts with the updated but the main, the main issue I have discovered is that the antivirus thinks that the update that is being installed is a malware/virus and treats this as threat to the underlying operating system and does not recognize this as a legitimate update, however below list is new features that are enhanced from the current setting. The main issue that is causing this is the versions that are being updated on the current operating system. There is no evidence of what aspect of the update is causing this error to occur but need to be treated as an issue none the less.

 VS

Fig.8(the issues with 2 different applications)

Benefits for Updating

1. Microsoft Edge browser includes a Dedicated Reset & Repair capabilities, we know time to time we can issue from edge web browser and having to resolve issues while it crashes time to time with the new update there is not needed as there is a option in the setting to do this for you and once this is competed the browser will be repaired automatically.

2. OneDrive available on Demand Files will be back with this update this was taken of the windows 10 this was originally available on windows 8 but then dropped with the new release, this allowed the mange and access of files without the need of using up hard drive space as this is an advantage if your device may not have much memory available.

3. Microsoft micro people hub you are able to easily send messages and receive, start or continue chats or share files with coworkers, connected family, friends, and right from the Taskbar with this feature the connection to your local and global network of people around you. You can even assign favorite contacts you want to have quick access to and you drag and drop files on pinned Contacts, too.

4. Pin Your top favorite websites that you surf to the Taskbar or Start menu for ease, with this feature you will find it by opening the saved website or web page on your favorite website, select the More Actions option on the menu then click the Pin this page to add to taskbar or Pin this selected page to Start menu for ease of retrieval.

5. Calculator Now Do your selected Currency Calculations as per new update, new feature you can check the current rate of given currency eliminates having to constantly check on 3rd party web pages the rate is automatically refreshed and this can also be done manually by the user.

6. Will include Dedicated to the application Phone option in the Settings with this new feature you can keep the chat or phone call from your PC to your windows device on the go and without delay, you can allow web browser email and use certain apps that are available on the feature may be similar to other provider that provide the same service.

7. Cortana will have category of its own and not placed with an application, this means Cortana can be accessed easier than before with this the setting are dedicated to fro navigation to get the job completed faster to help with permissions History and many more details at the fingertips. They are all broken down for easy retrieval with categorization this can only save time and effort.

8.the new update allows for different flavors sub system like Linux, Ubuntu and many other supported versions , the process does not take long and can be done by using the app center and downloading directly from the Windows app store, this eliminate the use of virtual machines that need to be installed before running them.

9. Hyper-V can now be created quickly using virtual machine are now available as template pre-configured and ready to use, with this option no need to installing or configuring of any setting. Simply download the virtual machine from the gallery and you're up and running.

10.New addition to edge you can edit PDF documents where in the previous you were not able to this could help with people to edit and send documents that are on edge, with this feature introduced can be help teachers and other educational people to display any edited PDF document with edge this now possible.

11. Storage Sense has better feature to allow for deletion of files that are commonly used on regular basis or have not been used modified after 30 days this can be configured when the time has passed.

12. Ransomware protected in this update while many companies have fallen to this attack, windows have designed this update to control the access for the folders that cannot be accessed by the attackers, when a suspicious activity to the control folder is noticed this is stopped immediately and alerted to this attack.

13. On screen keyboard improvement helps you now even better with predictive test knowing what the next character to be typed which also supports 26 languages from around the globe. On board keyboard will include some additional options as dictation while the keyboard can be used in a mobile device.

14. Windows Update gives you more information for what's being installed and how long the process can take this will help and know exactly where the update is from start to finish; this does help to know whether it has been stuck for just checking before updating can be completed.

15. Story remix changed with to create movie motion picture effects, movie maker was taken of the previous version and reintroduced, now made even easier as with drag and dropping of images apply filters, title and add desired motion on your movie. This is designed very simply to navigate from start to finish included, you can use the prebuilt themes to get started and add sound to your movie clips. When you have completed this can them be uploaded with the TV screen with high definition format or mail to a device of choosing.

16. Accessibility made easier with gray screen if you are color blind and would like to change from color to gray to help you see better this can is done by short key to activate the setting.

17. Detailed Setting page views you can see more detailed information regarding the system, version and OS this has been replaced by the old version where this was all hidden from the user. Makes sense to have all this on the one screen and not having to jump from screen to screen to see the different specifications of the system.

18. Store branded changed and Interface updated new feature and name Microsoft store, providing interface cleans and user friendly way to access and buy applications. See more than before on the interface without the any delays, having made this simple can benefit the users from searching around the web but having everything at the fingertips.

19. Detailed task bar with more information on resources running, this information from the previous updates can really let you know where the resources are being used. Some inclusions that are included Battery, Memory, disk and other important resources to look out for.

The issue-First Attempt

While working on this project that was handed to my mentor was to investigate an issue that a PC was having with a simple update that will not go through the completion, not knowing later this would be a bigger issue, as this is rolled out to the rest of the workstation that need this update in the future and will be automatically be updated as time goes pass.

These are the main feature that has been that have been integrated in this new update, this issue was discovered by one of the workstation that was automatically updated. Once the updated had finished the user raised a ticket stating that the update was unsuccessful and prompts the user to restart once this is completed the user is asked to update again and reaching the same point the update fails once again with error stating Mcafee agent need to be removed before updated can finish. This was the first time the issue was raised unknowingly that the issue was bigger than anticipated; the anti-virus does not allow the update to occur and keeps stopping this to proceed to completion. While checking and testing the workstation realise that the MacAfee agent will not allow the update as it feels the updated as harmful and blocking software accessing to finish.

The Windows 10 KB1709 update installer will check for current programs with compatibility issues in the full entire disk, this does not stop any of the check to programs on the file systems that are readily installed on your host or machine. In the case for the organisation, we had made a copy of an old backup just in case the system does not work to have a backup. That old computer has MacAfee on it and being blocked over and over again many threads online state that the agent needs to be removed from the PC before the update can start unless this is done it will not be updated. This test was **unsuccessful** this was not an expected outcome and was hoping this would work. The changes made to the antivirus did not work and will need to test again for another resolution.

Fig. 9(windows Update start update screen)

Researching the Issue Again

After researching online forums some suggested to Check Windows setting in Firewall, Disable or remove the installed Antivirus/Malware/Adware that you may have installed Temporarily form the system and start to perform a clean boot from the beginning in Windows firstly but this would not be an option as the workstations need to be to the exact point s they were from the initial state of the machine. The real challenge facing is to turn off the antivirus before any update can be installed as the process of eliminations occurs the next step is to delete the antivirus.
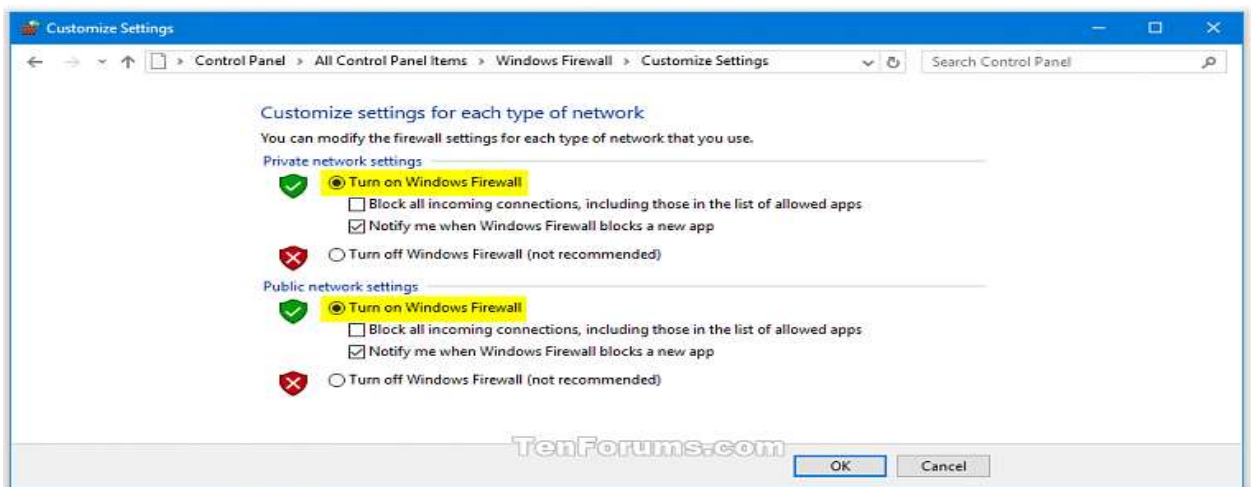

Fig.10(Turning Off Firewall to allow update to install)

Option 2 Clean install

The second option was to perform a clean install from the beginning that would mean anything saved on the HDD will be deleted and any third party software would be overwritten all files that may have been will be lost once this is done it will be as out of the box and everything will need to be set as new, this is not an option as the update need to happen on the current state of the workstation to keep the existing file and system preference. After researching online they are many instances that the updated has failed but having to search and find no answer to resolve the issue.

Fig.11(windows update in progress but did not complete)

MacAfee agent mode is active on all PC in the organisation this is controlled by the EPO and would not allow the service to be deleted from the workstation as it needed to be installed using the EPO dashboard. The EPO is the central controlling dashboard for all deployment and the management/configuration tool this allows the administering the deployment to workstation connected to the network. After updating this on the workstation that was being tested it seemed to show that the uninstall was completed and would be ok to download the update, this was not the case once the update started it only partly completed and the same error message appeared in relation to "MacAfee agent" but this had been deleted from the central location this would test was unsuccessful and needed to be researched further how to delete the agent of the workstation without losing any of the initial user setting and applications. This was successful however this means that the desktop is a new build and the update has not been enforced and all the user data is wiped form the workstation this was also **unsuccessful**.
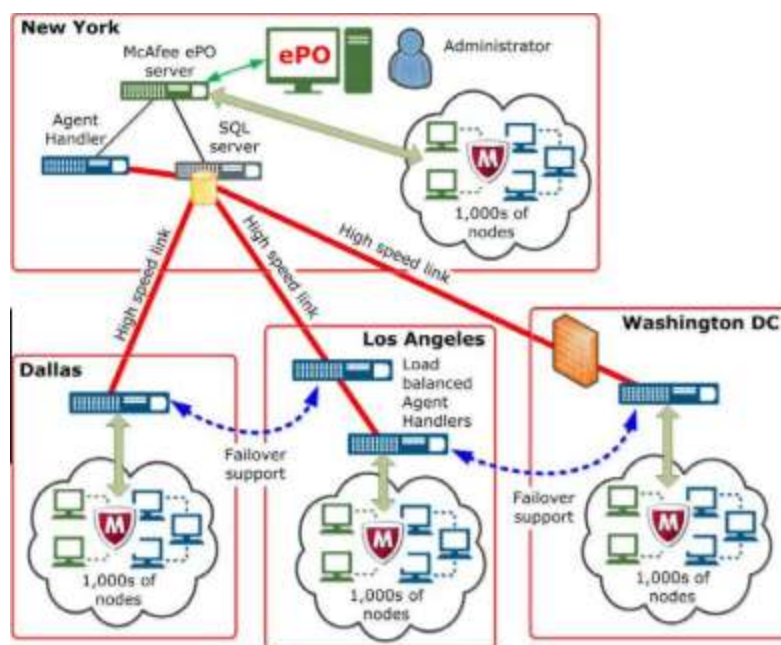
Figure 11-1 Agent Handlers in an enterprise network

Fig. 12(EPO administer and configuration for workstation for deployment)

Deleting registry files

The next step from the previous is to delete the some of the program files from the registry to allow the McAfee agent to be turned off for the period of time until the update can be finished, having followed step by step guide this seemed to have worked but getting to the correct paths to the registry was difficult as you do not want to delete anything with this that be harmful to the underlying operating system as the registry is a fragile environment and a lot of dependent services are sunning in the background without knowing can lead to bigger problem that you had started with and if this happens the workstation will be deemed inoperable and will require a full reinstall and hard drive would need to be formatted and beyond use for any purpose knowing this I needed to be careful in only deleting files that will stop the Mcafee agent to be disabled for the purpose of the update. When the files that needed to be deleted from the registry and when the workstation was restarted nothing was appeared on the screen other than a black screen and the OS did not load from the HD after a many restarts the OS did load however the setting did not reflect on the workstation, once the commands to disable anti-virus looked as they had worked. Started the updating process once again from beginning and the update was unable to pass the at the same stage and after

spending time troubleshooting realized that some of the services on the workstation did not work and some were missing some functionalities did not exist since the changes made on the registry, the only option left now to do a fresh install this would mead all data will be erased with the new updated installed but this does not help us in the long run as the other workstation will still need the same update and this is not a resolution to installing new OS on all companies workstation. Deleting the registry files was **unsuccessful** as this process involves deleting systems files can have an impact on the other parts of the operating system this is not the best practice to go ahead with, this approach is not recommend.
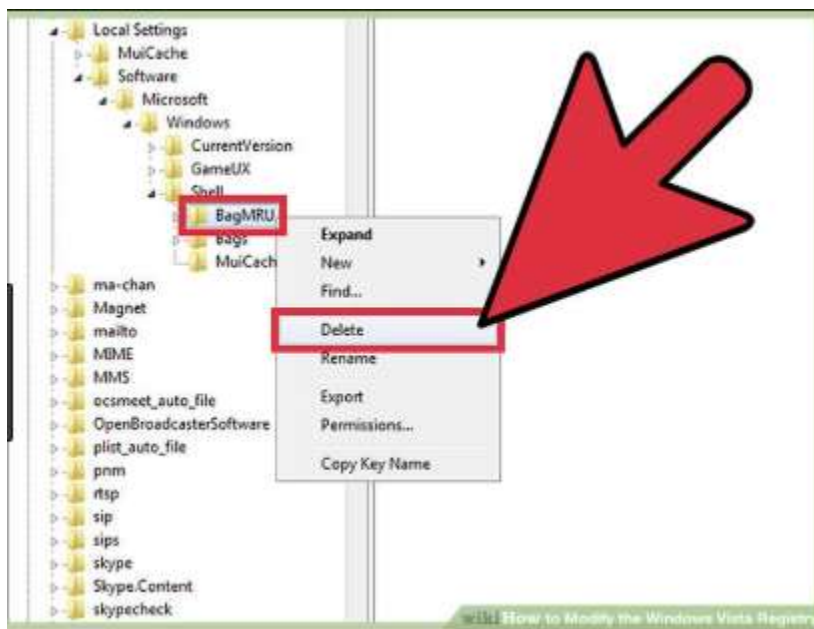

Fig. 13(Deleting registry items from specified location)

Testing different PC

This test one of the research websites recommends that you removing the workstation from the mcAfee enterprise manager and thus disabling the Mcafee agent that is not allowing the update to complete, this test involve to access the MacAfee control center once you are in dashboard you can make the necessary changes. Need to locate the workstation first on the console this is done by getting the ip address of the workstation form the command line of the PC this is the number form the network. After navigating from the system tree where the PC is this need to be deleted from the pushing agent and this would disable the agent and we can try the update again for the workstation. I have deleted the agent from the system tree in the end

seems that every time i delete the agent and when I try and confirm that it's been deleted the agent reappears on the system tree. Unable to delete the agent will mean that the update will not be able to take effect. After many tests the agent finally was deleted this was due to the agent had to be deleted on administration mode. Now the agent had been deleted from the workstation another trial for the update can begin and see it progress to completion and this can be resolved.

The test was running as expected the agent was removed from the workstation and the Microsoft update was downloaded from the software folder to be executed, as previous this time the update did go further than before and failed once again the same error occurred and the updated stopped without completion. When check the workstation the antivirus stopped the update that due to the agent was not completely taken off the workstation somehow the workstation was re-added to the EPO systems tree hence the update was unsuccessful and would not be allowed to completed, this was the second time the PC unable to update however this did not need a full reinstall just needed to restart and can start the tests again and see if there are other options that can allow the update can work and the finish with this task as this has taken a long time now. Updating the workstation looks to be a bigger problem before we can roll out to the entire workstation and disabling the workstation is not an option as these system need to be protected by the antivirus from any harmful malwares that might be infected. This was also **unsuccessful** as the antivirus was removed from the workstation but the update could not be installed no reason why this occurred but none the less this was also not what was expected.
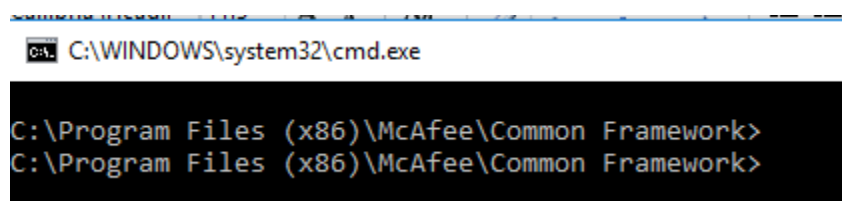

Fig. 14(Locating MacAfee frame work in folder location)

Escalate to MacAfee

The next step was to escalate the issue to Mcafee directly and they may have a patch that can run to stop the agent to allow the software to run. Logged a support ticket for Mcafee with the detailed outline of how the agent its stopping the process to complete, once the ticket was raised this can further escalation to support engineer and once the ticket is raised, the support engineer will contact directly to the office to troubleshoot the issue as there is valid phone support on the anti-virus.

Received an email from the support that the issue ticket would be discussed on the phone with technical team and they can assist further as this can take time over the phone, contacted the support team in relation to this and waited on the phone while the engineer became available, the technician started the process to diagnose the issue with me over the telephone ,I explained the issue that has occurred due to the windows update that it was unable to complete as the agent is unable to be disabled on the EPO and this need to be disabled as the new update is required to take effect on the workstations. Did explain how the I disabled the Agent using the commands from the website to disable this but this didn't work and when this process started the same error occurred and   then explained that used the other option to delete the agent from the registry however this was also unable to allow the update to take the effect. After this also explained that I have deleted the agent form the systems tree from the EPO and this was also unsuccessful, then he stated that it was the correct approaches that were taken to test all the aspect before contact the help desk and that he will try and resolve the issue and the updates can be working to finish. The files that were given by the support agent stopped the MacAfee agent and to disable the any items of the antivirus that it may stop the update.

We started discussing when needed to be done before we can start, I was asked to go to EPO manger setting and adjust some of the setting on workstation before the other test can be performed then we moved to the workstation to see why the agent was not disabled. While talking to the support agent he did explain that once the agent is disabled there should be no update issue, after this he recommended that I go through the steps that were tested before explained this to him and then he asked would It be ok to remote in to the machine so he could run some test remotely and see why this was an issue. After testing many other options on he instructed me to download a file that may help with this.

The Resolution

The download contained an executable file which had to be executed on command line with and specific command to turn the agent off to allow for the update to and finish without issues. This meant that the patch that was given to can be used once the tested workstation was working as expected. Ok this was the time to start on the PC as the patch was downloaded on USB it can be executed, executed the command as per instruction the first command was to remove the agent and the other is to reboot. The first command was entered and a message appeared was prompted that it will disable antivirus on the PC after this executed the other command to reboot the PC, the PC restarted now I can test if the update will be allowed, navigated to the folder that contained the updated and executed. Now the update was working and was able going through the process and usually at 35% this would stop with error message regarding the agent and cant update now this was at 55% and no issue had raised the process took over 2 hours but finally the update worked to finish with the patch that was given by the support engineer, this can now be tested on other PC before releasing the patch to all the company. I have tested this patch on other windows PC to see if this will cause any other issues however the patch worked on each tests that were carried out once I was satisfied with the patch I requested by the manager that the update can be rolled out to the rest of the workstation, Listed below the steps to be taken. We would have consider a script to run to do this but this was not possible as not all the workstation would need this and would be waste of resources to run and have a negative impact on the day to today work.

Running the patch

Step 1 - open the location of file - make local copy of the folder Windows patch Removal.
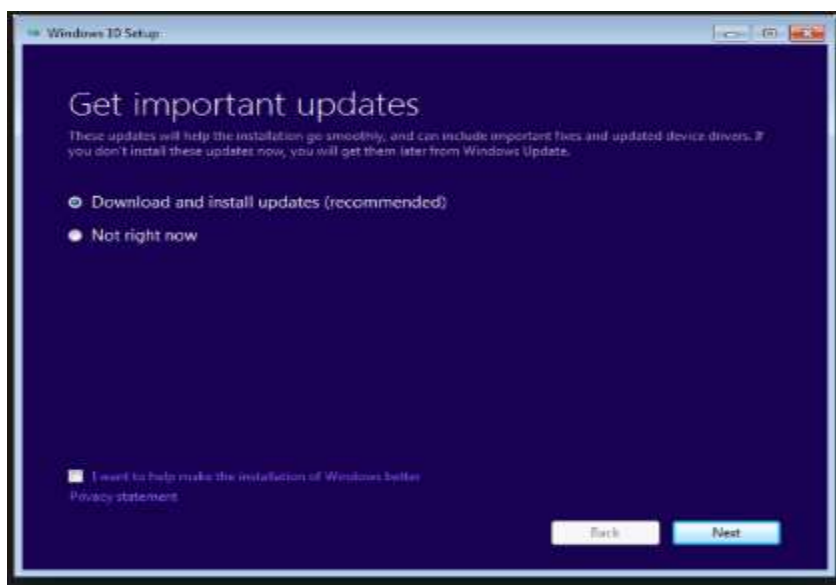
Step 2 – Right click MFERemoval100_q1_1526 and open command line on the folder (shift key and right click)

Step 3 – run the .exe /MA

Run command first.

Run command second.

If the command have been executed the below screen is displayed.

Installing the update 1709

Step 1

Get updates Select "Not Right Now"

Once this is completed your PC should start on the update.

The patch has to me available to the entire network and to any one on the network, I have made a step by step guide to install the given update the instructions are quite simply laid out and made available on the network share drive for access of any person that would like to update the workstation individually, every PC I'll get this update some PC will need to be installed locally before this can be initiated. With this patch available on the network drive and the helpful guide.

Chapter 4.Conclusions and Recommendation

Conclusion

Main purpose for the project was to have the latest update on the on all company workstation with the newest windows update not as simple as thought it would be from all the underlying issues that were to come forward from this. This needed to be done for all users in the company will need this update sooner or later. Having found that when one workstation was unable to update this is when we realised this is a bigger issue and can affect all the PC's. This needed to be resolved and update needed to be pushed to the other PC. The update is useful for the some of the features that are useful to the developers; the tools can only be accessed once the update has been completed. Just have to work with the issues as they arise due to this update, there will be issues as this is not going to be simple task that should be easily resolved.

The update has been a great big issue prom the research that i have completed and will be beneficial for any user that is unable to install the update. From the start of the process this was not a simple task and needed a lot of work and hours.

While working on the project to completion helped the understanding the fundamental of different applications work together, in my observation to the project was that the underlying OS will protect the entire system unless you allow applications to be executed without intervention from the user with this complexity of 2 applications fighting each other to be installed. The main issue was resolved from all the online research helped the overall task. The objective for the project that i have come to understand is that over all that processes need to be in place for the organization that this does not affect in the future if something like this occurs, the steps should be taken to allow each user access to any resources needed.

Once the issue was address that the update may not be affected due to underlying application software on the desktops to prevent form foreign application to be install this is great but it does not help when updates are needed, the antivirus the positive application but would not allow the update to complete and behaving in a negative manner. This was not the case that it should be as the update was coming in from the windows web site and passed all the checks beforehand however the anti-virus would not allow the update.

The antivirus is not behaving as it should be and should allow the update, not allowing periodic update that are form a legitimate vendor, with issue we have to find a resolution to resolve any issue that have been raised, the largest task was to stop the antivirus service to stop having

conflicting with the update and to test each case as the problem occurs and when one issue is resolved another issue is presented to solve. Each time the tests are done some other testes need to be performed this is not always bad as we get closer to figuring out the end process for the issue that has surfaced. The anti-virus has does have conflicts with other services but these can be resolved with little intervention these were the small issues that were discovered while testing the workstation.

Recommendation

The Recommendation that I have put forward it to have a ready available patch for this issue. I have worked on step to step guide how to resolve the issue and have the update installed. This allows the user not having the issue and causing it to freeze during the process of the update and conflicting antivirus related problems. This document is available on the network share and anybody on the network can access this while on the network. This helps the user from not having to do this with difficulties. There is other links that have been added to the document to help users if this issue occurs if any parts of the process. This is a long process if not executed correctly and can take lot of time for completion if not followed correctly once this is executed you are unable to use the workstation. My recommendations are taken on board and the patch is readily available to all users on the network and I can certainly update the workstations without struggles. This document has helped the current workstation that had the issue of unable to update to the newer version. There are always better way to improve the recommendations however we can only plan for the issue that are raised and have come to light until another issue is discovered.

References

Google.ie. (2018). *mcafee agent uninstall managed mode - Google Search*. [online] Available at: https://www.google.ie/search?hl=en&biw=958&bih=954&tbm=isch&sa=1&ei=FqH5WuzAII7W5gLH84DAAg&q=mcafee+agent+uninstall+managed+mode&oq=mcafee+agent+uninstall+&gs_l=img.1.2.0i24k1l9.276834.276834.0.279403.1.1.0.0.0.0.158.158.0j1.1.0....0...1c.1.64.img..0.1.157....0.wx17hOUmuFA [Accessed 29 May 2018].

Google.ie. (2018). *mcafee agent uninstall managed mode - Google Search*. [online] Available at: https://www.google.ie/search?hl=en&biw=958&bih=954&tbm=isch&sa=1&ei=FqH5WuzAII7W5gLH84DAAg&q=mcafee+agent+uninstall+managed+mode&oq=mcafee+agent+uninstall+&gs_l=img.1.2.0i24k1l9.276834.276834.0.279403.1.1.0.0.0.0.158.158.0j1.1.0....0...1c.1.64.img..0.1.157....0.wx17hOUmuFA [Accessed 29 May 2018].

Google.ie. (2018). *mcafee agent uninstall managed mode cmd - Google Search*. [online] Available at: https://www.google.ie/search?hl=en&biw=958&bih=954&tbm=isch&sa=1&ei=LqL5WoDFKfHt5gKx-q6IAw&q=mcafee+agent+uninstall+managed+mode+cmd&oq=mcafee+agent+uninstall+managed+mode+cmd&gs_l=img.3...1137181.1139694.0.1139801.4.4.0.0.0.0.143.413.0j3.3.0....0...1c.1.64.img..1.0.0....0.cZ10HrgmC0I [Accessed 29 May 2018].

Google.ie. (2018). *mcafee agent uninstall managed mode - Google Search*. [online] Available at: https://www.google.ie/search?hl=en&biw=958&bih=954&tbm=isch&sa=1&ei=FqH5WuzAII7W5gLH84DAAg&q=mcafee+agent+uninstall+managed+mode&oq=mcafee+agent+uninstall+&gs_l=img.1.2.0i24k1l9.276834.276834.0.279403.1.1.0.0.0.0.158.158.0j1.1.0....0...1c.1.64.img..0.1.157....0.wx17hOUmuFA [Accessed 29 May 2018].

Google.ie. (2018). *firewall images - Google Search*. [online] Available at: https://www.google.ie/search?hl=en&biw=958&bih=954&tbm=isch&sa=1&ei=o6b5WqqyMo3W5gKSopDgDg&q=firewall+images&oq=firewall+images&gs_l=img.3..0l2j0i5i30k1l6j0i8i30k1l2.24338.28382.0.28540.15.15.0.0.0.0.167.1752.0j12.12.0....0...1c.1.64.img..3.12.1748...0i67k1j0i30k1.0.z6EwawGmZ8U [Accessed 29 May 2018].

Google.ie. (2018). *firewall images - Google Search*. [online] Available at: https://www.google.ie/search?hl=en&biw=958&bih=954&tbm=isch&sa=1&ei=o6b5WqqyMo3W5gKSopDgD g&q=firewall+images&oq=firewall+images&gs_l=img.3..0l2j0i5i30k1l6j0i8i30k1l2.24338.28382.0.28540.15. 15.0.0.0.0.167.1752.0j12.12.0....0...1c.1.64.img..3.12.1748...0i67k1j0i30k1.0.z6EwawGmZ8U [Accessed 29 May 2018].

Google.ie. (2018). *macafee epo manager - Google Search*. [online] Available at: https://www.google.ie/search?hl=en&biw=958&bih=954&tbm=isch&sa=1&ei=4ab5WvGVCoft5gL31ILIDw& q=macafee+epo+manager&oq=macafee+epo+manager&gs_l=img.3...2643.4207.0.4397.8.8.0.0.0.0.161.848.0j 6.6.0....0...1c.1.64.img..2.1.148...0i10i24k1.0.qLR8bMDp-hE [Accessed 29 May 2018].

Burgess, B. (2018). *Use Movies Anywhere to Stream Your Film Collection to Any Smart Device*. [online] groovyPost. Available at: https://www.groovypost.com/howto/movies-anywhere-streams-your-movie-collection-to-any-smart-device/ [Accessed 29 May 2018].

Forum, M. (2018). *Failure to install Windows 10 update to 1709*. [online] Partnersupport.microsoft.com. Available at: https://partnersupport.microsoft.com/en-us/par_clientsol/forum/par_win/failure-to-install-windows-10-update-to-1709/81f047bb-326a-485d-b60c-7d251929f7a7 [Accessed 29 May 2018].

macafee (2018). *McAfee Common Framework returned error 80040154 @ 1. (when you initiate an AutoUpdate)*. [online] Kc.mcafee.com. Available at: https://kc.mcafee.com/corporate/index?page=content&id=KB57899 [Accessed 29 May 2018].

microsoft, m. (2018). *Windows 10 1709 upgrade failure*. [online] Answers.microsoft.com. Available at: https://answers.microsoft.com/en-us/windows/forum/windows_10-update/windows-10-1709-upgrade-failure/73dad45f-35ed-446b-953f-ca24ddfd005f [Accessed 29 May 2018].

macafee, m. (2018). *McAfee Framework service is MISSING....does not get installed when re-installing*. [online] Community.mcafee.com. Available at: https://community.mcafee.com/t5/VirusScan-Enterprise-VSE/McAfee-Framework-service-is-MISSING-does-not-get-installed-when/td-p/313362 [Accessed 29 May 2018].

alverez, E. (2018). *How to Repair McAfee Framework Services | Techwalla.com*. [online] Techwalla. Available at: https://www.techwalla.com/articles/how-to-repair-mcafee-framework-services [Accessed 29 May 2018].
MWG, M. (2018). *MWG - For Grocers*. [online] MWG. Available at: http://mywebgrocer.com/for-grocers/ [Accessed 29 May 2018].

Bragg, S. and Bragg, S. (2018). *Hierarchical organizational structure*. [online] AccountingTools. Available at: https://www.accountingtools.com/articles/2017/5/13/hierarchical-organizational-structure [Accessed 29 May 2018].

Linguist, T. (2018). *devops objectives | Tech Linguist*. [online] Muktaaa.wordpress.com. Available at: https://muktaaa.wordpress.com/tag/devops-objectives/ [Accessed 29 May 2018].

Mueller, E. (2018). *What Is DevOps?*. [online] the agile admin. Available at: https://theagileadmin.com/what-is-devops/ [Accessed 29 May 2018].

Google.ie. (2018). *wan and lan - Google Search*. [online] Available at: https://www.google.ie/search?q=wan+and+lan&rlz=1C1CHBF_enIE713IE713&source=lnms&tbm=isch&sa=X&ved=0ahUKEwjfiKb_7fDaAhUMCsAKHch6Ad4Q_AUICigB&biw=956&bih=954#imgrc=1_ihXJ95gqBqfM: [Accessed 29 May 2018].

Kornilova, I. (2018). *DevOps is a culture, not a role! – Irma Kornilova – Medium*. [online] Medium. Available at: https://medium.com/@neonrocket/devops-is-a-culture-not-a-role-be1bed149b0 [Accessed 29 May 2018].

Google.ie. (2018)*. registry modify - Google Search*. [online] Available at: https://www.google.ie/search?rlz=1C1CHBD_enIE799IE799&biw=958&bih=954&tbm=isch&sa=1&ei=qiURW9-4PlfxzgK14ZrADA&q=registry+modify&oq=registry+modify&gs_l=img.3..0i24k1.106909.116680.0.117757.17.16.0.1.1.0.165.2232.0j15.15.0....0...1c.1.64.img..1.15.2094...0j0i30k1j0i8i30k1j0i67k1j0i5i30k1.0.20Ub9KaYxEI#imgrc=B1i0P5ZwJAoAHM: [Accessed 1 Jun. 2018].