Industrial Placement Report

Candidate Number: 184514

Bayley Cowen-Seagrove

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Abstract

The purpose of this report is to provide an account of the year I have spent on placement as well as provide evidence that I have met the learning outcomes of a placement year. The report will further contain the projects and activities I have engaged in, the knowledge and skills I have brought to from my academic course along with previous experience, any new knowledge, and skills I have developed whilst on this placement, on top of basic information about the company.

Contents

Overview of the Company

Take-Two Interactive Software is a leading game developer, marketer, and publisher of interactive entertainment. Take-Two develops and publishes products mainly through Rockstar Games and 2K, two wholly owned labels, along with Private Division, Social Point and recently acquired Nordeus (Take-Two, 2021). The products are designed for consoles, PCs, smartphones, and tablets which are available through both physical and digital retail, online platforms, and cloud services. The most popular products the company develops are the Grand Theft Auto series, with the newest installment, Grand Theft Auto V, being the third most sold game of all time (Sirani, 2021) along with the NBA 2K series which is the best-selling basketball franchise of all time (Cox, 2020). The company operates within the interactive entertainment industry, which is believed to be the most dynamic segment of the entertainment industry since it fundamentally relies on creativity and innovation. The headquarters are based in New York, and have large offices in; Paris, Munich, Madrid, Las Vegas, San Francisco, Singapore, Tokyo, and the newly opened office in central London after the recently closing of the Windsor office (Take-Two, 2021). In addition, Take-Two is the third largest publicly traded video games company in Americas and Europe, after Activision Blizzard; known for their Call of Duty titles, Candy Crush and World of Warcraft (Activision Blizzard, 2021) and Electronic Arts, known for the FIFA series (Electronic Arts, 2021).

At Take-Two IT is split into two different divisions, IT infrastructure and IT applications. IT applications are a department that solely work towards developing and proving support to IT services that are used within the company. IT infrastructure is a broader department that covers developing, maintaining, and providing support to the company's infrastructure through departments such as Networking, Systems, Security, Global Support and many more. My role is encapsulated under the Global Support department which is split into three teams, EU Support, US Support and APAC (Asia-Pacific) Support. The only difference between these teams is the location they are based, therefore the timings they provide IT support. As support is not locked to a region, this often leads to EU Support providing additional support US Support later in our day as due to the US having more users, they tend to require more support.

Overview of the Role

The role I do for Take-Two is labelled as a Junior System Administrator apart of the intern programme they run each year. The core task of my role is to provide first-line customer support to the users on our Take-Two system. This can be for full-time employees or even consultants for labels like 2K. This requires a positive attitude along with being punctual and most importantly being able to effectively communicate technical solutions to users in a clear and concise manner. We use ServiceNow as a ticketing service which allows support requests from users to be passed to us in the form of 'Incidents'. The role also consisted of keeping an up-to-date audit of all IT hardware, the setup of IT hardware, completing standing orders, and mainly towards the end of the placement year, the decommission of the Windsor office and initial setup and maintenance of the brand-new London Office.

Projects & Tasks worked on

Resolving Incidents through ServiceNow

Users who run into problems or need access to certain network/software permissions would need to put in a ticket through ServiceNow. Users can go about this by either, emailing an account that automatically populates the ServiceNow queue, submitting a request via a form on the digital workspace, which is like a VLE site for Take-Two, or more recently submitting a request through a remote-work Slack channel. In any of these instances, a new ticket will be created and added to our unassigned queue.

Once added to our queue, we will receive an email/notification that a new ticket has been added to our queue. New tickets have a ‘State’ of New. From that time, we have 15 minutes to either place the ticket on hold, by changing the state to ‘On Hold’, or assigning yourself/someone the ticket. From there you have another 15 minutes to either reply to the ticket, possibly with a solution or an invite link to a remote session or send over a response requesting further information. This is very good practice as it stops support from ignoring tickets or assigning them and not actioning them. These standards and practices were brought in ensure high quality customer service and allow for problems to be solved in a timely manner. The only downside to this approach is that it somewhat promotes rushing through tickets and not reading the ticket thoroughly before responding.

If a ticket is submitted and no action to the state occurs within 15 minutes, or a ticket doesn’t receive a reply within 30 minutes, an SLA breach occurs. This means there was delayed product delivery or poor service performance (Mathenge, 2021)**.** Once the issue is resolved, or the request has been fulfilled, the ticket is then closed. Before closing, you must ‘Tag’ the ticket with an appropriate tag such as ‘Incident’ or ‘Request’. This is a standard the company uses for tracking the number of requests and incidents we have each week. By tracking these, it could help suggest patterns and trends and helps the team decide whether a certain request with lots of recent tickets needs to be created into a more automated form.

Some tickets may need the help of other people or teams to complete the task requested due to lack of permissions or approvals needed before giving access. If a user requested a license to a software, for instance Tableau (Tableau, 2021), which is data visualization software, we would need to send an approval off to the application owner. Once the app owner has approved the requested access, then we would provision the access. To do this through ServiceNow there was an ‘Add Approval’ feature on tickets which allows you to send a message off to the approver and the ticket’s state would be updated to ‘Awaiting Approval’. Additionally, if a ticket required the collaboration of another team, we would create a ‘child ticket’. This creates a ticket within the main ticket and could be used for example for firewall blocks as these would need the networking team to work on unblocking the site/application after we have provided key elements such as source/destination IP, port numbers and business reasoning. Lots of tickets require collaboration like this, which is a key skill I brought over from university, expanded upon in modules like Software Engineering.

The skills I brought from my other job which does have an aspect of customer service vastly helped at the beginning of the internship regarding initial confidence and how to approach users with problems. In addition, I leant a great deal about how to deal with users of high importance and how to approach their requests/incidents. This experience from a commercial environment was a new experience for me but having well thought out and helpful training from my team vastly helped with grasping the skills required to provide commercial support. This has allowed me to create clear and effective documentation, a skill I brought from university, and in the future made it even easier to train new support members.

Active Directory

A regular task that I would need to complete would be adding/removing network/software permissions for users through a tool called Active Directory (AD). AD is a directory service developed by Microsoft for Windows domain networks (Microsoft, 2017) and to access AD I would need to remote into an IT admins desktop and sign in using my admin account. Active Directory stored all users and their network, software, and user permissions. Users could send a request through a ticket or fill out a form requesting permission to a certain application, network location, a piece of software, or to be added to a mailing list. Each permission had a group which users could be added to, only once approved by the user who managed the AD group. To find this, in most instances, after selecting the group and selecting the ‘Managed By’ tab, a user will be present. Before adding any user to a group, it was company procedure to get the approval of the app owner. I find this good practice as users could request access to anything, including software licenses, while requesting for approval requires a work justification. To do this, you could email, Slack, or use the built-in approval service with ServiceNow, which notifies the owner to either approve or deny. If a group did not have an app owner, either I would reach out to our Global Support group and see if anyone knew or check older ServiceNow tickets to see who approved those. Once the app owner, or relevant approver is found, I would add this user to the ‘Managed By’ tab in AD or at least make a note on the AD object. This is seen as good practice at the company and eventually lead to the creation of an App Owners documentation to be created which was available for IT members to check any notes on groups with multiple approvers. Active Directory was a new skill learnt at this internship which after researching is used by many other companies so is a good commercial skill to know.

UK and EU IT Hardware Auditing

In addition, the role also requires skills of auditing in a clear manner as all IT hardware installed within the offices and sent out to users is usually spread across two or more programs. Every user has at least one work laptop and one work mobile, in almost all cases iPhones. These can be spread across two services, Lansweeper (Windows machines) and AirWatch (MacOS and IOS devices). Lansweeper is a useful tool that gathers hardware and software information of computers on a computer network for management, compliance, and audit purposes (Lansweeper, 2021). The downside of Lansweeper is its overall slow speed to update devices and the workplace team may request an audit for the London office, but do not have access to Lansweeper. AirWatch is an MDM system used to manage, organize, centralize, and synchronize all the organization's shared data, also known as Master data, is accurate and consistent. We predominantly use AirWatch to manage our Apple devices which are enrolled through the Apple deployment program (vmware, 2021)**.** Before this internship I had no previous experience with auditing or using either of this management systems but was trained thoroughly over a remote call and given clear documentation to learn from.

A London audit, formerly Windsor, is kept, structured, and updated by me every week. This is vital for us as when users request equipment this is used as a cross-reference to check the user's current equipment. It's also needed for hardware refreshes as we have all device warranty expiration dates on this document and hardware will be automatically highlighted if it's coming to the end of its warranty, giving us some time to pick up on this and provide an upgrade if needed. The document also stores the office equipment installed, such as meeting room scheduling iPads, gaming consoles and desktops installed at user's desks and in common areas, along with any spare equipment stored in the office or in IT support members' homes. As of recent, we have also been trained in auditing through ServiceNow, so the hardware is linked to the hardware replacement requests, and incidents stating issues with hardware. Hopefully by auditing and resolving issues both through ServiceNow will lead to a more future proof method of storing hardware assets and can allow for an easier shift when someone else takes over in auditing. We also must audit all hardware for all EU sites consisting of; Paris, Madid, Munich & a few users out in Benelux. Lots of requests were coming in due to everyone working from home and needing equipment sent out such as monitors, docking stations and peripherals. Most of these requests were submitted as tickets through ServiceNow, but all equipment sent out was documented in a COVID19 Equipment list which I took over for a few months while we had many requests and allowed me to further improve my auditing skills.

Initial Setup/Wiping for New Hires/Terminations

Quite often, the HR department submits tickets for us, in some cases of high confidentiality regarding the termination of an employee, or a request to reduce or even remove a user's access. By working within the company's policies, I would have to in these cases use my admin permissions in Active Directory to either disable the users account or in some cases take a copy of the user's access, using a PowerShell script I developed, and remove all requested access. PowerShell was a language that I had no experience in before coming to Take-Two however having experience programming from my academic background I was able to take a short LinkedIn Learning course and picked up the language quite quickly. After creating some of the short scripts, I was asked to document and comment the code I had created for future use in case of any amendments needed. In the instance of a termination, we would then arrange a courier to collect the work equipment. We would use my UK IT Hardware Audit to check what equipment the user has and send this over to the courier for notes on the collection.

With the setup of new hires, we are reached out again by HR to create the user's mailbox, link it to their account and provide all requested hardware, usually only a work laptop and mobile. The mailbox is simply created using a PowerShell script developed previously in the company. It is required this is done correctly due to the mailbox linking with Okta. Okta is software that helps Take-Two manage and secure user authentication into applications (Okta, 2021)**.** Without Okta, users will not be able to access any work-related apps such as Outlook, Slack, Zoom or even HR tools such as Workday. By following the documentation provided, the user's mailbox can be created, and from there the account can be logged into and the requested devices can be set up. Setting up the laptop requires an image to be loaded over PXE and must be completed fully before signing the user in. All useful apps such as Outlook, Slack, Zoom and any further requested applications by the new hires' line manager are installed, logged into, and tested. This is a standard set by the company, and I must ensure before giving any equipment out these expectations have been met. Imaging is done through PXE which is another new skill learnt from this experience, however if there where issues with booting to PXE I did apply the skills I believe I learnt from an academic environment which were to ask for help only after doing individual research and troubleshooting.

A large task I tackled throughout June was the complete setup of the new interns who would join at the start of July. This task required reaching out to line managers and current interns regarding what permissions the new interns would need and what software should be installed on their work devices. To help automate some of this, using PowerShell, a cloning tool was created and effectively used to clone the current interns' permissions for network access and software license to the new interns. This would not have been possible without the academic experience I had in programming and being able to document the code allow for other users in the future to add to it easily.

Standing Orders

Throughout the internship I was tasked to raise and receipt purchase orders (POs) using a service called JD Edwards. I was briefly shown how to raise purchase orders, request approval from the correct users and receipt the POs once approved. Since there was not much documentation available on this, I applied academic knowledge to research this further, using documentation online (Oracle, n.d.)**.** I made clear notes to follow the steps since this task was of high importance and required a good understanding of the financial procedures and rules of Take-Two. Here I had to ensure depending on the amount of the purchase order, I would request approval from the correct user, for example if it was over a certain amount, I would no longer send the approval to the head of IT Global Support, but to the Vice President of IT Infrastructure. I also had to ensure to receipt the PO once approved, which was another financial procedure of the company. Once the PO is receipted, the order number, item number & account number must be recorded on an excel sheet containing all POs done by Global Support. I was also shown it was good practice to send an email to the approver regarding the PO in case they missed the notification on JD Edwards. Using previous knowledge of Outlook, I was able to create a template to use for PO approvals, so the information was always in a concise and clear way.

Decommission of Windsor Office

During my internship, Take-Two had recently acquired a new site to work from in Central London by Tottenham Court Road. Originally, we believed we would have moved full-time into the office by December 2020, but due to the continuous lockdowns, the date continued to be pushed back. This gave me the opportunity to work from the Windsor office occasionally if tasks on site needed to be completed. Usually this required the imaging of machines or uninstalling equipment that would need to be sent over to London. Going into the office required myself and anyone else to follow company policy on health and safety, which at the time was social distancing and wearing a mask.

Once the London office had the last structural work done, I was tasked to help decommission all equipment in the office, along with any storage rooms and create an audit document of all IT and AV equipment. Using an old office decommission audit, I was able to follow the previous standard to structure mine. We organized ourselves to tackle one problem at a time, hoping to optimize our efficiency and for the work to not be stop-start. For example, one person would focus on screens, while another focuses on cables. Arranging ourselves was an easy task due to both of us had previous experience in working in teams and using academic techniques taught like divide and conquer. Once all audited, we waited for the decision on equipment to kept, so we could make a list of the old equipment going in the new office.

Initial Setup of London office

Since May, I was able to go into the London office to help begin the initial installation of IT equipment. Going into the London Office required me to fill out a form daily regarding my current health along with provide proof of a negative lateral flow test result. This was one of the company's health and safety procedures due to lots of contractors being on site.

One of the first jobs was setting up the scheduling iPads for all the meeting rooms. These iPads would be using Zoom Rooms (Zoom, 2021) as the meeting room software, which does have support for iPad scheduling. The Zoom Room must have been created in Zoom Admin, a new skill I was trained on remotely. I had previous experience with Zoom Admin through my tuition job since it had been all online for the last year but had no experience with Zoom Room creation. Once the room is setup, the iPad would need to be remotely managed using AirWatch and set to a single app mode to only have Zoom Rooms open. These would then need to be linked to the PolyCom camera that were installed in the meeting rooms. Initially there were issues with linking the hardware but after researching this topic, I found out the Polycom Camera had to be changed to a certain VLAN along with it needed to be added to the DCHP Reservation. This is a method to pre-set an IP address to a specific client based on its mac address (Wagner, 2019)**.** Through the Meraki portal I was able to change the VLAN, however did not have permissions to pre-set the IP. After asking my line-manager to confirm, I reached out to networking to collaborate on this and got all the PolyComs connected to the iPads.

A similar job was done for the Envoy iPads which were used to sign the contractors in at the reception desk. These iPads needed to be assigned a profile in the Apple DEP portal, then synced into AirWatch and then finally turned on and logged into the remote management. Once done, all the relevant apps have been installed and a Single App Mode is enabled on the iPad due to a rule that all common space iPads need to be locked to an app. This gave me new, valuable training in using AirWatch admin and using the DEP portal.

In Windsor, we had a bunker room which was a gaming room for influencers who came to play the newest released games early. After decommissioning it, it was our job to re-set up all the machines and cable manage all the loose wires. I had never had any professional experience in setting up IT equipment but having my own PC at home used these skills to set all these desks up in an efficient and tidy manner.

Lots of re-imaging of equipment was done onsite due to lots of desktops falling off the network after not being turned on for over a year. This process was similar to re-imaging laptops which I had done at Windsor so was able to transfer those skills over.

Along with the new office, new desks and monitors where purchased for every floor. After the monitors were setup, I went around and configured and tested every desk, along with cable managing while ensuring the screens, webcams, peripherals, power ports and network ports all worked. This led to an IT snagging list being created which was passed around to AV contractors to fix any issues I found. This task required professionalism which I had acquired through university when working in groups and presenting my findings, such as in the Global Design Challenge.

Further to this, I had to test all meeting rooms ensuring sound quality in calls was acceptable, the camera orientation and focus was acceptable and all features of the Zoom Room, such as the tracking camera were working. This allowed me to learn new systems such as the PolyCom system that is used to configure the cameras to zoom rooms along with adjust the software of the camera. I found testing these to be good practice incase someone senior would come in attempting to use the meeting room and the hardware wasn't working as intended.

Finally, more recently I have been helping the company configure the SONOS system along with the video wall at the entrance to the building. As the people who would configure these systems are in the US and are unable to travel over due to restrictions, I have been able to expand my network along with gaining experience in working with these systems. Since I have never configured either of these before, I ensured I asked for any documentation which was kindly provided. Like the Zoom Rooms, the SONOS speaker needed to be correctly put on a different VLAN and were then able to connect to the entire system. I ensured that any notes I made on the SONOS and video wall were documented clearly and made available to the team before I would leave.

Training the new intern

At the start of July, the new intern programme began and due to my contract being extended, it caused an overlap between myself and the new intern. Since I was going into the office very regularly at this point, I was tasked to help train Louise and provide her with documentation and notes I had made throughout my internship that I found useful or used often for reference. After looking through the documentation provided on our knowledge base, I created a few documents following the same standards to teach Louise the basics of the role. These standards usually were to do with the structure of the documentation with pre-requisites and aim of the documentation clearly stated at the top along with each step having at least one screen-cap of what it should look like at that stage. Having done reports in a similar standard at university, especially when creating a user guide to a software I had developed, I was able to create clear and helpful documents for Louise to learn from. In addition, through training I would ensure professionalism is kept and I was meeting the behavioral standards, which is a skill I possessed through my other job, which does require me to train people in a professional environment.

Intern Quiz

During our placement, the whole group of interns decided to create a general knowledge quiz for the entire UK team to participate in. It was my job to reach out to various teams based in the UK to find a date and time that would work for everyone and whether they had a preferred method of doing quizzes, such as Kahoot (Kahoot, 2021)**.** Organizing this joint activity required a lot of patience as some members did take a while to get back to us. To send out the mass invite we had to reach out to HR and have this approved, as well as attempting to get a premium Kahoot account approved for us, as the free version did not have enough spaces available for all to join. To do this, we had to send a request form to HR to have this account created and paid for.

Luckily, not long after our quiz, a premium Kahoot account was created and used for other quizzes. We received very positive feedback after the quiz and most of us returned for other quizzes later in the year. I believe the quiz went well due to good presenting skills along with great communication between all the interns to ensure the quiz was completed and ready in time. These academic skills taught at university helped here with confidence in a commercial environment along with ensuring behavioral standards are met.

Mac Setup and Use

During my placement I was issued two MacBook pros, one Intel version and one of the new M1 versions. I was given instructions on how to add them to our management tool AirWatch, and what steps to take to set these up. I was given the task to document the differences on setup between the version and passed this onto Pete, who is the Senior Manager for Global Support, to be passed onto the teams who configure the backend setup. The documentation skills I used were ones I picked up from university, which taught to ensure concise and clear layouts. After doing this, I was given the option, which I took, to continue using a MacBook until the end of my placement. Having never used a Mac before, I learnt valuable information about how to provide support for users with Macs. This was further helped with LinkedIn Learning courses I was tasked with completing to ensure I had a reasonable knowledge on Macs. These skills were incredibly useful as I was now able to provide support for users based on Macs which is continuously growing at Take-Two.

Summary of Placement Year

To summarize my placement year, I believe I gained valuable commercial experience within the IT sector of work accompanied by further developing skills such as professional and collaboration through this working environment. I am very pleased with the amount of IT services and software I was trained in, providing me with a list of admin skills I can use to allow me to pursue jobs in the future with more demanding entry requirements. The exposure to MacBook’s has enabled me to gain an experience with hardware I would not have access to otherwise. A key experience I had throughout this placement was the involvement I had with the setup of a brand-new office. A benefit of this placement was being able to work from the office along with remotely as it allowed me to learn skills in both instances, which many other students may not have had the opportunity to experience due to the pandemic.

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