

Case Study 7: Supporting the Move to Online Learning and Remote Working

Introduction and Context:

NCI's IT Department operates a centralised model for delivery of all IT Services to students, faculty, and administrative staff. The forced move to on-line delivery and remote working in March 2020 presented multiple challenges to the IT Department and indeed NCI. The successful transition to fully online delivery and remote working was achieved due to significant strategic decisions taken in the five years prior to the crisis. The adoption of a "Cloud First Strategy" by the College enabled the IT team to put the necessary pillars in place to minimise disruption and maintain service throughout the transition. Since the move to fully online delivery in March 2020, over 2300 online learning events have been delivered and more than 100 administrative staff are working remotely with secure access to all necessary systems ensuring "Business as Usual" during these challenging times.

Summary of Initiatives Undertaken:

Despite having some of the pillars in place prior to the pandemic, NCI faced multiple challenges with the rapid shift to remote delivery of all classes and remote working of all staff. NCI's IT Team were able to respond to demands and support a quick and seamless transformation to online learning and remote working as the following pillars were in place:

- Cloud First Strategy – NCI took the decision 4 years ago to phase out their on-site data centre and use Microsoft Azure. Most of NCI's Infrastructure is now located in Azure Infrastructure As A Service (IAAS) which is highly available.
- Resilience – There is no reliance on Infrastructure on site. IT Services are accessible from any location, anytime, any device.
- Virtual Desktop Infrastructure (VDI) - NCI's primary method of delivering desktops was via VDI technology. This allowed students to access an NCI desktop from anywhere and from any device.
- Office 365 – NCI are established users of the Office 365 suite of products. This ensured that both students and staff could easily access key business applications from anywhere.
- Single Sign On (SSO) - NCI has long pursued an SSO policy.
- NCI MyApps Portal This portal is a single "Pane of Glass" providing students and staff with access to the standard Office 365 apps, and custom apps such as Moodle, Timetable, CoreHR and the IT Help Center.
- Employee mobility – All NCI faculty are assigned a laptop as their primary device. When the pandemic they were equipped to deliver lectures from home. In the past year NCI had taken the decision to pursue a laptop first policy phasing out the use of Desktops for staff when the pandemic hit, most of NCI's Management layer were equipped with laptops.

There were also immediate challenges that needed to be addressed.

- What technology would be used to deliver lectures remotely?

Prior to the pandemic NCI was delivering a limited number of online/blended programmes using the Adobe Connect platform. With the rapid move to online delivery for all courses across the College, IT had to identify an efficient and cost-effective solution. As all NCI staff and students were already licensed Microsoft Teams was adopted as the College platform for online delivery and remote working. Whilst initially it was thought

remote working would be for a limited period, once it became apparent that online delivery and remote working was likely to be extended to the 2020/21 academic year, IT recognised that to provide the level of support necessary to ensure a positive online experience for students and staff a dedicated resource with expertise in Microsoft Teams was needed to support students, faculty, staff and learning, teaching and assessment practices.

- What devices are needed for the large cohort of administrative staff?

When the Government first introduced Lockdown 1 in March 2020, IT had a limited supply of laptops in stock which following engagement with line managers, were assigned to administrative staff based on agreed priorities. IT subsequently secured the investment necessary from the College to procure 100 additional laptops and appropriate peripherals to meet the demands of remote working for all administrative staff. IT took the decision to procure a full dock set-up for each remote user. All staff were assigned a standard configuration of a laptop, a monitor, a docking station, keyboard, and mouse. This accelerated the phasing out of desktop program commenced prior to lockdown. By assigning each member of administrative staff their own laptop, which is now their primary device, staff will be expected to utilise the one device when working from College or from home.

- How will staff access legacy on-premises applications and file shares?

It was decided that a remote desktop system was the best way to allow access to file shares and legacy applications. Citrix Virtual Desktop Infrastructure was used to deliver student desktops, IT took decision that this platform would not be extended to staff primarily due to volume of work and costs. The College required a rapid and secure solution to providing staff with access to legacy applications. As NCI are heavily invested in Microsoft Azure, the decision was made to utilise the new Windows Virtual Desktop to provide the required services to staff. IT built a suite of desktops that provided users with secure remote access to a desktop from where they could access file shares and legacy applications.

- How can effective IT Support be delivered across a geographically dispersed organisation?

NCI recognised that it was vital that all users continued to receive a high level of IT support throughout the crisis. However, the landscape was now very much changed. IT found that the model used to provide on-site support was not as effective in a new online setting. NCI recognised that changes were required. After looking at the market, a decision was made to introduce a Knowledge Base system supported by a ticketing system. The idea was to populate the Knowledge Base system with useful articles and F.A.Q.'s available 24/7. This approach provides staff and students with access to solutions to issues as the issue arises. Additionally, if the user failed to find a solution to their problem or further support is required, the user can create a ticket and a member of IT would engage at earliest opportunity. Positive feedback on the service was noted from staff and students immediately after its launch.

Conclusion:

The IT Department's Cloud First Strategy and focus on cloud services prior to the Crisis enabled a smooth transition to online delivery and remote working without any significant service disruption. NCI's support for the IT Department's investment recommendations over the past five years have aided NCI's resilience and business continuity throughout the crisis and will inform the continuity of online services beyond COVID.