

Education



Case Study

International Horizons College



IHC

AN AMERICAN HONORS COLLEGE



وتحيا بها الحياة
add life to life

Campus in the Sky with Infrastructure in the Cloud

Managed Services at International Horizons College, Dubai



IT and communications technologies are key to the strategic objectives of International Horizons College and therefore play a major role in its operations. "We are trying to give students a 21st century learning environment using ICT, one which enables truly global collaboration," says IHC President and CEO Dr Michael Dobe. Initiatives like its Global Classroom underpin the very foundation of learning at the college. This involves the deployment of high-definition videoconferencing technologies so that students in Dubai and California are connected across the continents, so that they can share the same learning resources, and participate in discussions seamlessly with peers and tutors.

The education sector is no stranger to the use of videoconferencing. "It's been used for a very long time in the field of education, for a couple of decades in fact," Dr Dobe confirms. But rarely like this. The systems deployed for IHC allow for two-way real-time high-definition video in a way that promotes unfettered collaboration between people in Dubai and colleagues in the US.

New technology for a new college

IHC was founded in July 2011 as a highly selective American curriculum liberal arts college, with programs in the humanities and fine arts, social sciences, business and math and science. The institution provides high-performing students within the Middle East, North Africa and South Asia region with an American curriculum college education in arts, sciences and pre-professional studies. It also offers students a bridge into elite universities in the US, starting with a two-year Associate degree in Dubai followed by two years of study to complete a Bachelor degree at a top ranked US university.

Thanks to the Global Classroom initiative, even before students leave the Dubai campus for the US, they will already be very familiar with American learning processes through collaborative work with US students and US faculty members. "It has really changed the learning experience for the students and is seamless academically," Dr Dobe explains, "since IHC is structured completely on the American system of instruction. We offer American course content, American faculty and teaching methods, learning resources and transferability of credits to the US."

The IHC strategy for ICT is to enable students to access all learning material from any location, be it the campus or from their accommodation, using state-of-the-art tools and furniture, and using latest cloud-based IT services.

"Residing on the 42nd floor of the U-Bora Tower in Business Bay, we like to refer to our college as 'a campus in the sky.' It is also a 'cloud campus,' in that all of our software is running in the cloud. We don't have any servers on our campus and do not plan to have any servers on campus. We made a conscious decision in setting up the college to take advantage of the emerging offerings in managed services from du and have sourced our cloud services primarily from the US. We intend to also host the applications here in Dubai through our du partnership and are currently starting our pilot efforts with them."

He continues, "The beauty of this opportunity is that I can take my own earlier experiences with hosted application services and with SaaS and, empowered through the partnership with du, build a great, flexible managed service for IHC students and staff, without any of the barriers that so often characterise on-premise legacy systems."

Dr Dobe is a very strong proponent of managed services. "I have worked as a managed service CIO, I have been a customer of various managed service agencies in US, in Europe and here in the Middle and I can honestly say that du ranks up there with the best globally. A global classroom has many components and is a complex undertaking. What du has brought to the table is the relationships and the people who, working together, can deliver the solution as a managed service."

Success with SaaS

IHC's first partner was Google. IHC adopted Google for Education for powerful, rapid communication and collaboration. "We were able to get up and running with enterprise grade collaboration tools at virtually no cost. The service is terrific: it's a very reliable platform, it's a global service and it really is very much the model for what we are trying to do with our applications. We want to be very agile and be able to respond with flexible solutions to meet every need of our faculty members and students." To make paper documents digital as part of its productivity suite deployment, IHC has also put in place scanning technology, which allows existing paper documents to be loaded directly to the Google cloud at the touch of a button.



As in many progressive organisations, cloud is viewed as a strategic imperative for IHC. "We have a mantra of 'No servers on campus.' We are small now but as we grow, the beauty of the cloud is that it is highly scalable. The ability for us to add capacity at any point, and adding only a small incremental cost in a manageable fashion, is at the heart of the value we see in a cloud solution."

IHC does no in-house coding – it exclusively uses software-as-a-service (SaaS) and SaaS service providers. Dr Dobe says that with the stable and robust network IHC has received from du, this means it can provision application services from anywhere in the world. "So in setting up our student records system, we provisioned that from the US. The system we use has to be compliant with requirements both here in the UAE, and also with the requirements in the US. One benefit in using a SaaS platform is that it can be deployed very quickly: it is compliant right out-of-the-box." This is because the Ministry in the UAE has based its best practice approaches on US accreditation bodies. "This allowed us to use the SaaS platform, with very little modification. Getting started in this way, cost us between 10% and 20% of what it would have cost had we deployed one of the more traditional on-premise systems."

Adoption of cloud has had a massive impact on the level of investment IHC needed to make in wide area networking and ICT infrastructure. "The good thing about our partnership with du, is that du has already built the infrastructure. So we can build on what du has done, and concentrate on specific aspects, such as the end-to-end component of the videoconferencing set up. What du has offered us, and we have developed in partnership together, is an end-to-end solution which has allowed us as a new college to get up and running with the very best technology very quickly and at a very affordable price point."

Managing savings with managed services

"We were able to operate for over a year without having any internal IT staff and that is due directly to our partnership with du. We have only just taken on our first IT staff member."

IHC is based on a lean operational model and is very cautious about hiring support staff if the funds can be better used elsewhere, such as to offer more scholarships to deserving students or hire more faculty to teach students. "Without du's managed services, to do what we have done I would have had to hire a staff of 12 in IT. Instead, I've used du services and I pay a monthly fee. It is invaluable for me as a CEO to be able to oversee the cash flow and to know where our money is going. I can control those costs by having fixed monthly costs. I know how difficult it can be to control costs and cash-flow, and the value that the du's month over month cost metric gives me is that I can manage costs. Having a managed ICT service as an operational expense rather than IT being a drain on capital is a huge benefit." The model is to operationalise the costs, rather than expend the capital, notes Dr. Dobe.

With managed services, there are cost-of-ownership advantages, there are speed of deployment advantages, and there are scale-as-you-grow advantages. It does, however, put a great deal of emphasis on connectivity and the quality of that connectivity – something du has addressed.

As Dr. Dobe put it, “The value of the du partnership is that du has been very focused from the very beginning on assuring the high availability of their networked systems. We started discussions using no single point of failure as the yardstick, and we will be meeting that objective. All new du infrastructure was a big plus on the side of choosing U-Bora Tower, along with the breadth of the du offerings.”

The philosophy of IHC is to deliver the very best quality services using an enterprise-grade infrastructure: so du has worked to guarantee the sort of redundancy IHC needs, providing two fibre runs, for example, to ensure business continuity and constant availability of SaaS and managed service applications.



Future-proofed systems for generation X

Quality of service is critical. IHC’s teenage and 20-something students are among some of the most discerning IT-literate and tech-savvy of any user community and have great expectations of what they want from IT, and what they want to do with it.

So how does this play out in the learning environment, and how has IHC brought modern technologies into the classroom?

IHC and du have been especially innovative around video, which is at the core of e-learning. Up to 20% of all IHC courses could be delivered online, part of a blended approach to active learning that makes use of the combined real-time learning of virtual and “brick and mortar” classroom experiences. The managed video-as-a-service (MVaaS) solution delivered by du includes Polycom end points with Vaddio cameras integrated as a full system. “du provides us with a bridge, the fibre to get to the bridge, and the in-room camera systems – all integrated into one cohesive managed solution.”

What IHC has done particularly well using cloud and managed services, is to invest in rich user experience and avoid spending money in unnecessary areas.

“We have properly aligned the need with the funding. We are not about constraining students, but about empowering students. So we have a very open network, IHC encourages students, its staff, guests and visiting lecturers to connect with whatever device they have. We have given every student a Macbook laptop and an Android Nexus tablet, and we have avoided putting up any barriers to them using these technologies. For example, we don’t block video, we create and share video.”



Going forward there are plans to adopt mobile device management as a managed service – not to prevent data leakage necessarily, but as a means to enable and provision more mobile services to students. Where we need to protect student data we do so, but unlike a financial institution (for instance) we want our users to share Excel spreadsheets and PowerPoint presentations. Higher education is not about guarding secrets, but rather about broadening the corpus of human knowledge. For this reason, we don't waste a lot of time or effort with complex firewalls or proxies.

Dr Dobe continues, "On the other hand we do see a need to cache video on our network, and there is a role to play here for managed video caching services from du. Video performance works best when the content is near to the user. Cache a video to a laptop and it plays well. When you go to Google or YouTube, video is streamed and although the IHC network is very fast, it doesn't make up for the fact that the video has to be downloaded. The solution we have specified is an enterprise-grade cache flow engine from BlueCoat Systems that du has installed on our LAN. We can record video locally, archive these video learning materials in the cloud and cache them locally. It makes the experience with video on our LAN almost like our own dedicated video-streaming server. And remember, we have no servers on the IHC campus!" By managing video traffic in this way, the user experience will be made as rich as possible for students at the start of a successful learning experience.

International Horizons College in profile

- IHC is a selective independent and international undergraduate institution committed to fulfilling high standards of intellectual excellence relevant to the 21st century. The institution provides high academically performing students within the Middle East, North Africa and South Asia (MENASA) region with an American curriculum college education in arts, sciences and pre-professional studies and serves as a bridge for transfer access to elite universities in the United States and regional institutions. At IHC we balance specialized and general education to ensure that our students achieve a strong foundation for widely varying careers in business and industry, the professions, public service, teaching and fine arts.
- For further details, please visit: www.ihc-dubai.com or call +971 4 369-2000.

