Gardens & Museums IT

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Welcome

Welcome to the Spring edition of the Gardens & Museums IT Newsletter.

I think I share a lot of a lot of happiness in that we're in March and that it is Spring. Winter is my favourite time of year, though as a period it is always quite a strange time - December is usually full of anticipation and excitement for Christmas and a rest, but it is all too swiftly followed by January and the emotional impact that this has. And February just seems to be a month where people find themselves yearning for sun and longer days.

From an IT perspective we have certainly encountered some interesting issues - with rodents giving a New Years treat of a significant network disconnection at Harcourt. Followed by a power disruption at the end of February causing substantial impact to the network connection at the Pitt Rivers Museum and the Natural History Museum. And then gallery interactives misbehaving!

Suffice to say such instances (and many others) have challenged us in a number of ways, but the team has coped admirably, as they have throughout the period with support request numbers continuing to increase and the challenges of new ways of working continuing to impact.

This issue is a bit wordy, so I apologise in advance for this. But much of the information being shared this time is very important so please do take the time read.

All the best

Carl

Carl Parker
IT Service Manager

What's been going on? And what's coming?

Equipment Disposal

Throughout the last few years due to the culmination of the Infrastructure Project, the decommissioning of Harkness, and the collection of lots of surplus equipment and cabling we have managed to establish a large amount of IT equipment which is either not required or which no longer works. As such, we have carried out a number of disposal activities with non-working and old equipment recycled, and other equipment given away. This includes 12 boxes of network cables that were allocated to several colleges and departments across the University.

Harkness - Removal of IT infrastructure and Services

During this period, the IT infrastructure at Harkness has been fully decommissioned with services which had dependencies on the building successfully migrated elsewhere.

Firewall Wall Security and Firmware Updates

Several upgrades have recently been completed on the Gardens & Museums Firewalls, to update the system and ensure their security and that of the network.

GMIT Infrastructure Manager Recruitment

I am delighted to announce that we have managed to recruit an Infrastructure Manager to join the Gardens & Museums IT Team. Jona will join us from an Oxford College and brings a breadth of Infrastructure and systems knowledge to the team. We look forward to you meeting Jona when he commences his role during April.

Tree of Life Interactive

Please see Page 6.

Code42 - Deployment to Apple Computers

Please see Page 7.

Tesla Powerwall - MNH Comms Room

Please see Page 8.

Gardens & Museums AV Proposal; Discovery & Analysis

Due to a growing use of AV technologies and in turn a growing requirement for established AV Support, GMIT have had a proposal accepted to investigate the varied AV technologies across G&M in view to establishing the technical, support and resource requirements.

GLAM Commercial POS Proposal; Discovery & Analysis

The GLAM Point of Sale (till) devices have never had Operating System support which has caused several issues over the years. In line with this, and a growing concern regards this service gap GMIT have been commissioned to fully investigate requirements to support and manage the POS Device Operating Systems and the level of resource and skills required to fulfil.

Information Security Update

Throughout the University there have been several queries and many discussions in respect to Information Security, and the risk that the Ukraine Crisis poses to this.

As part of the University, we need to be vigilant at all times, but during times of heightened security we need to be even more so, and a key aspect of this is to ensure that the Information Security priorities are in place and followed. The University Information Security Team have written an update on this, which can be found here:

https://infosec.ox.ac.uk/article/ukraine-crisis-and-the-risk-to-information-security .

Alongside this I would like to highlight the importance of several key aspects of Information Security, and how we can remain safe online, whilst ensuring our data is secure. Please also review our Information Security page on the GMIT website: https://it.museums.ox.ac.uk/online-security .

Information Security Awareness Training

If you are new to the University, or have not carried out for some time, please do undertake the Information Security Awareness Training as a matter of priority. The course outlines your responsibilities, whilst also explaining the various risks and tests your understanding of the material. The training can be booked and taken from here: https://infosec.ox.ac.uk/do-the-online-training .

Phishing Messages

There are a large number of Phishing attacks on the University each day. The University security team do a great job of intercepting many of these before they reach our inboxes, but sadly some do get through. Therefore, it is incredibly important to understand how to avoid email scams and to be vigilant to such emails. Please read this page: https://www.infosec.ox.ac.uk/phishing#tab-450976, and if you do receive a suspicious email, please do not do anything until the email has been checked either by ourselves (Gardens & Museums IT: it@museums.ox.ac.uk) or the Infosec Team (phishing@infosec.ox.ac.uk).

Elements to look out for are...

- Asking you for a password, PIN or other personal information
- Asking you to open an attachment or 'make a donation'
- Poor spelling and grammar
- Using generic greetings such as 'Dear Bank Customer' or 'Dear Email User'
- Using a fake ('spoofed') email address - perhaps even your own

Information Security Update

Staying Safe Online

Using and browsing the Internet is a key aspect of many of our roles, but we need to ensure that we are sensible when doing so. This includes…

- The entering of information on websites - only enter usernames and passwords on known sites where the information is needed to log in
- Visiting only known or reputable websites
- Being aware of suspicious links on webpages

Secure your Device

We all use a number of devices to browse the internet, access email and to carry out various business and personal activities such as banking and shopping. As much of what we do can carry or permit access to sensitive information, including personal details and bank card information it is crucial that the devices we use are secure.

In all devices we use for such activities (business and personal) we should look to ensure the following…

- Ensure software is up to date and security patches have been applied
- Protect devices with up-to-date anti-virus software (if available)
- Password or Pin-code protect devices
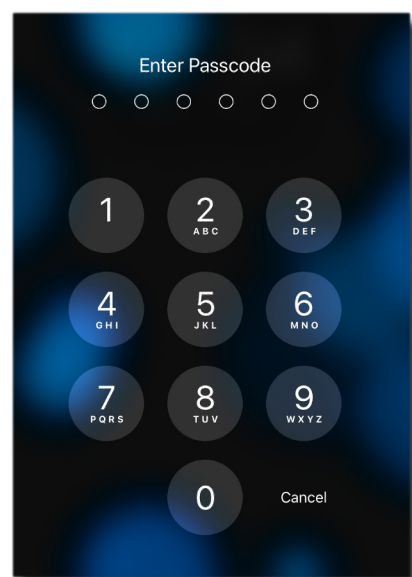
Further advise on this can be found here: https://infosec.ox.ac.uk/protect-my-computer .

Secure your Data

Our data, whether business or personal, is of particular importance, but is at significant risk of loss in a variety of ways (hardware failure, virus/malware infection, software corruption, ransomware attack, accidental deletion) - therefore it is crucial that we regularly and safely back up our data.

If you are using a CONNECT Computer, your data will be backed as per the service, but in all other instances a backup solution is required.

For mobile devices we encourage the use of Google Cloud for Android devices and iCloud for Apple iOS devices.

For computers (including Jamf managed machines) our recommendation is to use Code42, which is detailed further on Page. 7 of this newsletter.

New Starter Information

Over the course of the last 6 months there have been many changes across GLAM including many new people coming to work in the Gardens & Museums.

As much as we would like the starting process to be smooth and easy, the nature of the environments we work in, and the changing demands of how we work and where we work often impacts this. This means certain preparations need to be made before someone new commences work within the Gardens & Museums. As much as ourselves and IT Services would like to be able to issue hardware, accounts and accesses at short notice, we need the required time in order to do this, which is why requests in advance are so important.

To assist with this, we have a number of documents on our website aimed at both New Starters, and Line Managers of New Starters, to help with the preparations and hopefully to offer an improved and more settled beginning to life in GLAM.

Line Manager - New Starter Guide
https://it.museums.ox.ac.uk/files/gmlinemanagernewstarterprocedurev30pdf

This document outlines the various steps that a Line Manager will need to consider when they have a new person starting, and the required time-scales for doing so. This document includes...

- University Card (including SSO)
- Computer Request and Computer Account Request (CONNECT/Apple)
- CONNECT File Share Access and Nexus Mailbox Access

New Starter Guide
https://it.museums.ox.ac.uk/files/gmnewstarterprocedurev20pdf

The New Starter Guide outlines the initial IT information that one would need to begin working in the Gardens & Museums. There is a lot of different information from a lot of different sources, but we have tried to make a concise, simple document to help with this. Items contained within are...

- IT Support within the Gardens & Museums
- SSO (Single Sign-On) Activation and MFA (Multi-factor Authentication)
- Computer Log In (CONNECT/Apple) and CONNECT File Share Access
- Nexus365 Email: Access Mail Online and Set up Outlook
- Remote Access Account - VPN and Eduroam

Introduction to IT
https://it.museums.ox.ac.uk/files/gmititintroductiondocumentv70pdf

The Introduction to IT Document is a comprehensive guide, with step-by-step instructions covering the different areas of IT. This includes how to obtain IT Support, information on the various IT related user accounts (SSO; Computer Login; Remote Access), Information Security, Nexus365 Email Access and Microsoft Teams access.

Interactives...

Interactives are huge attractions in the respective museums, whether permanent or temporary, and one can often see many people using and interacting with them. They are particularly popular with children and having two of my own I've lost countless minutes and hours watching them play with the interactives in our museums and others as well.

As key parts of museum engagement we all hope that they keep working, but what happens when they do start experiencing issues or stop working entirely?

In my 4 years working in GLAM we have managed to restore to service a number of Interactives, and recently needed to do so with the incredibly popular Tree of Life Interactive at the Museum of Natural History.

When we approach such instances, our initial aim is to restore the interactive but in the cases that we've encountered this has been complicated by aging hardware, no backup of files, and no documentation on the device configuration. We then need to move towards building a new machine, and reverse engineering the original configuration. This is far more complicated than it sounds as we have to work out the files which are needed and any application dependencies, and to then source the applications.

Fortunately, in all cases - and now including the Tree of Life - we've been able to successfully achieve this. But, as delighted as we are to get them working again, it is as important to keep them working - and the one thing you can guarantee with a computer is that it will go wrong at some point! In each instance - to ensure the service is as robust as possible - we have secured a backup of the required files and applications, as well as documenting the process.

It's good to know that we've played a significant part in the Tree of Life working once more, but it's even better to know that with the steps we've taken it will continue to work for some time, and that many can continue to enjoy.

Code42 Cloud Backup Service

Keeping yours and the University's data safe is something which we all understand the importance of, but often it is not something which we put mitigations in place until it is too late. Over the years, particularly when working directly with students, I encountered many instances where data was lost, and despite best efforts not recoverable. As such it is essential that we all have suitable mechanisms in place to keep our data secure and safe which is at risk of loss or corruption from a variety of different scenarios (with some listed below). Simple preventative mitigations now can be the difference between having your data safe and secure or the potential loss.

- Incorrect deletion
- Hardware Corruption - a hard drive failure (internal lor external) can cause substantial and immediate loss of data
- Operating System Corruption - can cause data corruption or data to be irretrievable
- Virus Infection - can cause OS and data corruption

Throughout the last year the University has been making considerable changes and improvements to its data backup provision through the introduction of Code42 and the end of TSM. We have been testing the Code42 application and have been impressed at how simple it is to use, whilst offering several benefits…

- There is no VPN requirement - you can back up your data from anywhere to the Code42 Cloud
- Code42 offers unlimited storage, and there are no daily limits to how much you backup - the software efficiently backups in the background every 15 minutes using minimal resources
- You can backup up to 4 machines under one personal account
- Code42 has a simple and intuitive user interface, making it easy to decide what to select and exclude from your backup
- You can restore your data from one machine to another. This includes cross platform support, such as Windows to Mac and vice-versa

If you are using a CONNECT Computer and/or saving to the CONNECT File shares then your data will be secure within the CONNECT service, but in all other instances including the use of OneDrive, we highly recommend the use of Code42. During March and April, we will be visiting those with Apple Computers within our Jamf Service to help with the setup of Code42. Please keep and eye out for us and get in contact if you want help with this before via it@museums.ox.ac.uk .

Additionally, if wanting to secure University data on any other machine and needing help with the installation or application use, we have put together an instruction document that can be found on our website: https://it.museums.ox.ac.uk/files/gmitcode42backupsolutionpdf .

Museum of Natural History Comms Room

Part of the Infrastructure Project, progressed in phases, has been the re-design and rejuvenation of the main Museum of Natural History Comms Room.

Aims of the project were to maximise the use of the space, whilst using innovative, cost effective and sustainable technologies to achieve this.

This project has involved the engagement and collaboration of several parties and has included new cabling and new infrastructure. And impressively the finalised deployment has two firsts for the University in the installation of a cabinet which includes internal air conditioning and a Tesla Powerwall to replace the conventional UPS technology.

Although a few final tweaks are required it's exciting to see the final steps put in place, and to have watched this develop over the years with the Gardens & Museums leading on the introduction and use of such technology within the University.

Service & Support Statistics –
# 1st November 2021 to 31st January 2022

Quarter 2 of the 2021 to 2022 Academic Year has once more been incredibly busy, and much like Quarter 1 we continue to see an increased demand for IT support. Recent guidance changes from working from home to return to office, and vice versa has created significant demand. Some have required considerable support with this or new equipment to facilitate.

Requests Received 1261	Requests Resolved 1251	Avg. Days to Respond 0.4	Avg. Days to Resolve 1.7

Support Request Comparison - 2019/2020; 2020/2021; 2021/2022
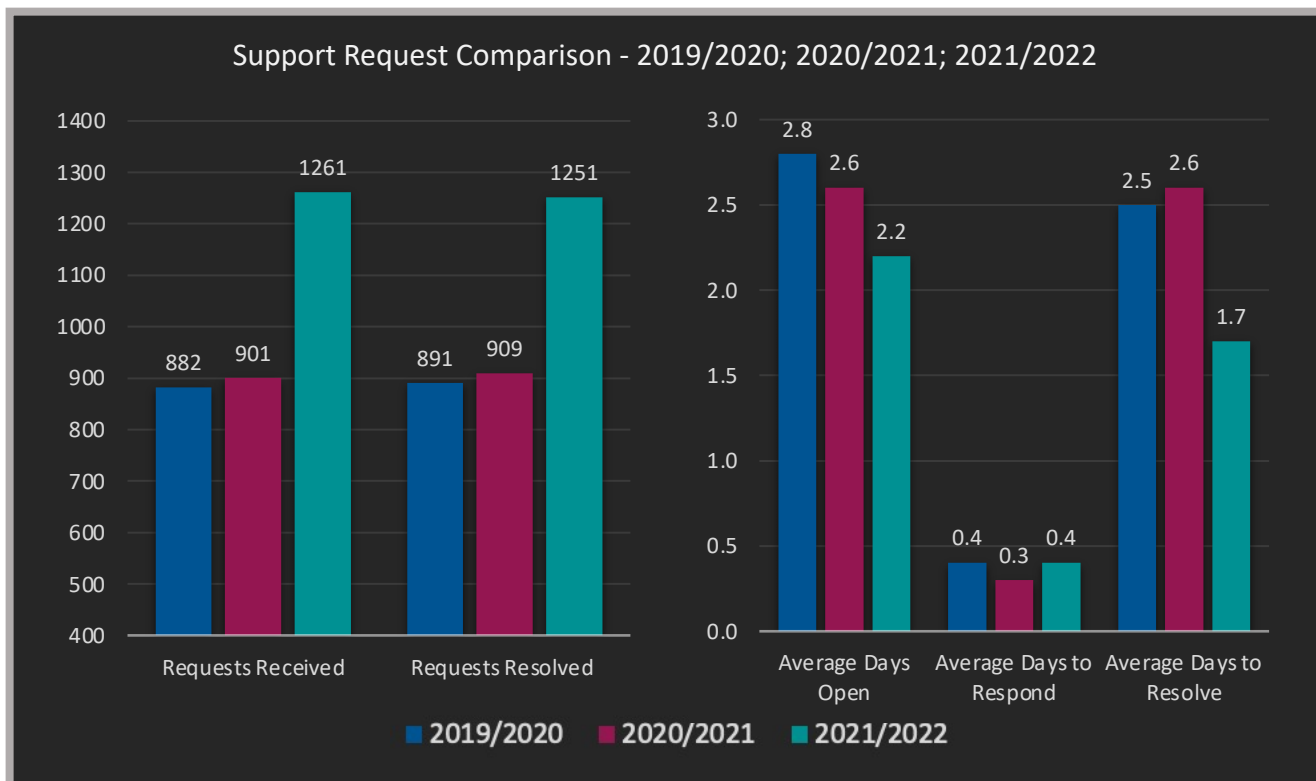
Location	Requests	Percentage
Ashmolean Museum	358	28%
Museum of Natural History	186	15%
Pitt Rivers Museum	175	14%
History of Science Museum	56	4%
Botanic Gardens & Arboretum	38	3%
GLAM Divisional Office	99	8%
All sites - requests and activities which benefit or impact all locations	349	28%

Full Service Reports are available on the Gardens & Museums IT Website: https://it.museums.ox.ac.uk/article/service-reports

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2021/2022 GMIT Roadmap

Project/Activity	August 2021	September 2021	October 2021	November 2021	December 2021	January 2022	February 2022	March 2022	April 2022	May 2022	June 2022	July 2022	2022/2023
INFORMATION SECURITY													
Apple MacOS		MacOS 11 BigSur Upgrade				MacOS 12 Monterey Testing					MacOS 12 Monterey Deployment		
Apple iOS		iOS 15 Testing	iOS 15 update OBG Managed Devices	iOS 15 update - Ashmolean Managed Devices	iOS 15 update Pitt Rivers Managed Devices		iOS Jamf Mgmt - Ashmolean Facilities						
Jamf SSO Deployment					Deployed as new Apple devices are provisioned. Or as Apple devices are re-provisioned.								
Identity & Access Management	Microsoft Azure - Operational Review	Microsoft Azure - Technical Review	Microsoft Azure - Consultation; System Development & Service Transition		Microsoft Azure - Operational Documentation								
Windows (non-CONNECT)					Windows 21H1 Update - Non-Connect Computers			Windows 11 Testing			Windows 11 Deployment		
BUSINESS AS USUAL													
Reporting & Communications	Quarterly Service Report	Autumn Newsletter		Quarterly Service Report	Winter Newsletter		Quarterly Service Report	Spring Newsletter		Quarterly Service Report	Summer Newsletter		
IT Services Liaison		Continual Activity - IT Services Directors, It Services Service Desk, It Services Desktop Services, IT Services Purchasing											
Board & Committee Membership		Continual Activity - NAG, COWLSHUR, Directorial & Operational Meetings across G&M											
Purchasing & Procurement		Continual Activity - actively purchasing and providing purchasing guidance across G&M											
Vendor Management		Continual Activity - engagement and management of vendor relationships											
SSL Certificate Renewals			SSL Certificate Renewals			SSL Certificate Renewals							
Asset & Licence Management					DNS Audit		Equipment Disposal		G&M Adobe Licencing Review & Renewal		G&M - All sites Equipment Audit		
Support & Service Tasks/Activities of note	MNH Microsculptures Interactive Re-built	Commercial POS Device Support 3 x POS devices re-build		Ashmolean Taharqua Interactive Re-build	Data Centre UPS Service	Harkness - removal of connectivity and service		MNH Tree Of Life Interactive Re-build					
SERVICE IMPROVEMENT													
Communications	Quarterly Newsletter Creation			Quarterly Newsletter Creation			Quarterly Newsletter Creation			Quarterly Newsletter Creation			
Hybrid Working	Hybrid Working Equipment Investigation & Documentation	GLAM DO Office Preparation & Procurement	GLAM DO Office Cabling & Installation				GLAM DO Office Cabling & Installation	GMIT Office Cabling & Installation					
New Ways of Working		Activities to run throughout 2021/22											
Apple MacOS Service Improvement	Apple Desktop & Laptop provision analysis		Apple Desktop & Laptop Configuration & Deployment										
Apple iOS Service Improvement	Ashmolean iOS Device Configuration & Deployments	OBG iOS Device Configuration & Deployments					iOS Jamf Mgmt - Ashmolean Facilities						
Backup & Recovery	Code42 Backup Solution Testing		Code42 Backup Solution Documentation		Code42 Backup Solution Apple Deployment								
Application & Database	MNH & HSM Emu Service Transition		MNH & PRM Filemaker Database Review & Changes										
Documentation & Knowledgebase	Apple Computing New Apple Computer Document	iOS Devices Management with Jamf	Website Content Review	Code 42 End User Configuration Guide	Apple Computing Process & Handover Document		Service Portfolio - Review & Update						
INFRASTRUCTURE IMPROVEMENT													
Infrastructure Improvements	Ashmolean HLT Network Upgrade	Firewall Changes	Ashmolean Facilities Network Upgrade		SDC Firewall Upgrade	Tesla Powerwall Install @ MNH	Harkness - deprovisioning	Firewall Upgrade					
Infrastructure Auditing and Documentation	Firewall Audit		Osney One Data Centre Audit		WiFi Configuration Documentation		Switch Documentation	UPS Audit					
Harcourt Arboretum Wi-Fi Implementation	Auditing, Configuration & Deployment					Fibre and WiFi connection improvements							
Upper Heyford Shelter 7 Provisioning			WiFi Provision Review & Implementation										
Upper Heyford Shelter 8 Provisioning		WiFi Provision Review & Implementation		Data Point & Power Requirements Review & Implementation									
Natural History Museum Chorus Deployment		MNH Chorus - Phone Configuration and Deployment				MNH Chorus - Phone Configuration and Deployment							
Visitor Counter System		PRM Visitor Counter System Deployment & Configuration			FootfallCam Documentation								
PERSONNEL													
Personal Development Review			Pre-DRs: Preparation & Discussions on PDR		PDR Meetings & Paperwork				6 Month PDR Reviews				
Training & Development - planned/attended	COBIT5 framework for the governance of enterprise IT - Haas Ezzet	ITIL 4 Service Management - Create, Deliver Support - Carl Parker					Jamf 200 Management - Amanda Clark			CCNA Daniel Puil			
Recruitment		Infrastructure Manager Post Discovery & Analysis; Job Specification		Infrastructure Manager Post advertised	Infrastructure Manager Post Interviews	Infrastructure Manager Recruitment							
Skills Matrix				Skills Matrix Document Update & Review	Skills Matrix Completion			Skills Matrix Review					
PROJECTS													
Commercial Systems		Commercial POS Device Support 3 x POS devices re-build		Commercial Demands Investigation & Discovery Proposal						Commercial Demands Investigation & Discovery			
AV Systems	MNH Microsculptures Interactive Re-built		AV Demands Investigation & Discovery Proposal	Ashmolean Taharqua Interactive Re-build			MNH Tree of Life Interactive Re-build						
CMS & DAMS - MUS764		Service Deployment & Service Transition											
Online Collections - MUS765		Service Deployment & Service Transition											
CTRC (Reuben College)		CTRC Project to run throughout 2021/22											
Microsites		CSF (Swindon) Project to run throughout 2021/22											
CSF (Swindon)		Microsites Project to run throughout 2021/22											
OBGA Education iPads		OBGA: Device Configuration; Device Management; Deployment											

The latest version can be found on the Gardens & Museums IT Website: https://it.museums.ox.ac.uk/article/documents