# Gardens & Museums IT

## Inside this Issue

**Gardens & Museums IT Contact Details**

- Feedback Email: it@glam.ox.ac.uk
- IT Support Email: it@museums.ox.ac.uk

**If you require this document in an alternative format please contact us via it@museums.ox.ac.uk**

## Welcome

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

Since the last time I wrote (in March) so much seems to have happened, from both a work capacity but also in the world we live! Many of us have now received our first Covid vaccination and the Gardens & Museums are once more open with us all hoping that this remains the case.

We have been incredibly busy working on a number of projects across all locations in a number of service areas, requiring different working processes. With this in mind it has really struck me how many of our practices have evolved or adjusted throughout Covid to meet the continued and changing IT demands. I currently sit in my dining area working on my laptop testing a panoramic webcam for hybrid working, whilst a desktop computer is connected to my living room TV updating, and a laptop is configuring on my daughter's high chair table.

At the same time I know that Alex has set up a tablet configuration line in his house, whilst Anjanesh's kitchen at many points has had more networking equipment connected than it has kitchen appliances!

I write this because all of the Gardens & Museums IT Newsletters have been created during the Pandemic and as we finally look to move past this (at least to some degree) it's particularly poignant to mark the changes and adjustments we've made in continuing our service despite the challenges.

Please read on for information on what we've been up to over the last 3 months and what's coming in the Summer of 2021!

All the best

Carl

**Carl Parker**
**IT Service Manager**

# What's been going on?

### Outreach & Engagement
Anjanesh recently presented at the JISC Networkshop49 on Identity & Access Management (https://www.jisc.ac.uk/blog/im-always-looking-for-better-ways-to-make-identity-and-access-management-seamless-19-feb-2021). Also Amazon published a case study showcasing Machine Learning in Heritage collections based on a GMIT led pilot with the Ashmolean Coins Collection (https://aws.amazon.com/solutions/case-studies/oxford-case-study/).

### History of Science Museum Collections Online
The HSM Collections Online project has begun with GMIT leading on the API service design.

### Cloud News
Successful proof of concept testing of running a Windows client on Amazon has taken place. This uses the Amazon AppStream service to run Windows systems inside a web browser offering a flexible cloud based application.The potential benefits of using this includes securely enabling any windows software to be used by any devices.

### Microsites Project
With the assistance of a new Amazon Service Partner and Web Developer, a pilot and test has been successfully completed on the GM Legacy Websites and migration is now underway.

### Ashmolean Net2 Server at Harkness
With the support of Helder Sousa (Head of Ashmolean Security) the Net2 Server which controls access to the Harkness Building has been decommissioned and replaced with a Dell Micro PC reducing annual costs.

### Adobe Licence Renewal
The Adobe Licences in use across the Gardens & Museums have been reviewed and renewed. If you have a current Adobe Licence which you do not make use of please get in contact with us so that we can release the licence and reduce the Adobe costs.

### Museum of Natural History 'Meat the Future' Interactive PC
An Interactive PC with automated functionality has been configured by GMIT for the latest MNH Exhibition 'Meat the Future'. This interactive allows you to check the environmental impact of your grocery shopping choices!

### OBG Display PC
An automated Display PC was built and deployed by GMIT in the Charlotte Building Kitchen for the display of news and updates.

### Other activities of note...

# SSO MFA: Implementation Update

The implementation of Multi-factor Authentication has continued to progress, and has kept us very busy since the last time I wrote in March. Between the 1st of February and 31st April we received 120 MFA requests, which equated to 12% of the total number of requests (1014) we received in that period.

The project moved from our Personal Accounts to Project (Secondary) Accounts in this time and we established that there were 180 Project Accounts in use across the Gardens & Museums, with said accounts being used in a variety of ways. Therefore, significant investigation was needed to establish the requirements for these accounts and the best means to access, taking into consideration MFA and operational efficiencies.

I am happy to report that with the support and cooperation of the Account Owners we have been able to find a solution for 166 of the accounts, with many of the accounts being removed or access being changed to pre-authorized as opposed to password based access.

| Location | Number Completed | Total Number | % Complete |
|---|---|---|---|
| GLAM Divisional Office | 12 | 12 | 100 |
| Ashmolean Museum | 80 | 91 | 88 |
| Museum of Natural History | 13 | 13 | 100 |
| Pitt Rivers Museum | 23 | 24 | 96 |
| History of Science Museum | 15 | 16 | 94 |
| Botanic Garden & Arboretum | 23 | 24 | 96 |
| Total | 166 | 180 | 92 |

The project has now moved on to the implementation of MFA on those outstanding accounts, where we either didn't receive a response, or that a password alongside MFA was agreed to be the best means for access. This process began on the 4th May 2021 with Account Owners being contacted directly by IT Services. The remainder of the schedule can be seen below, and for a full outline of the project please see: **https://itservicesprojects.web.ox.ac.uk/multi-factor-authentication-project**

| Secondary account | MFA Enabled Date |
|---|---|
| G & F | Tuesday 01-Jun-21 |
| E | Wednesday 02-Jun-21 |
| D | Thursday 03-Jun-21 |
| C | Monday 07-Jun-21 |
| B | Tuesday 08-Jun-21 |
| A & No Email (SSO only) | Wednesday 09-Jun-21 |
| Delayed | Thursday 15-Jul-21 |

# Museum of Natural History Wiring Project

I began working in the Gardens & Museums IT Team in January 2018, and during all my time here there has been one project that has been ongoing throughout my tenure, which began in 2017 and this is the MNH Wiring Project.


**Chorus Phones being configured**

This project has not been without its twists and turns, and has suffered many curve balls along the way.

After much effort and many hours (and tears) I'm delighted to say (as I'm sure are many others) that this massive networking improvement is finally complete!

Anjanesh has been leading the project from a Gardens & Museums IT perspective and has seen his creativity, ingenuity and technical prowess severely tested during the project, but has achieved - alongside the project team and ably assisted by Dan and Spiro - some amazing things!

## Highlights:

- **800 data points installed**
- **30 data switches installed**
- **Chorus Phone System deployed**
- **Fanless switches (which do not generate noise) installed in shared working areas**
- **Sustainable principles applied**
- **Installation of self contained air conditioned cabinet**
- **Plug-and-play networking**
- **£500k investment**


**Air conditioned Cabinet**

The completion of this project is a huge step forward and improvement for the Museum of Natural History and GLAM.

A massive congratulations to all those involved!

# Hybrid Working; Home & Office Meetings

One of the current talking points within the University is hybrid working, and in particular how meetings between multiple colleagues working on site and those working at home can be facilitated.

With this in mind we have been discussing this requirement with University suppliers and colleagues to ascertain ways and means this is being tackled elsewhere. Our aims were to establish simple to use, flexible and efficient solutions to this problem.


Meeting Owl Pro

After said investigations we have purchased 3 products to trial in view of determining the functionalities they offer and suitability to the various meeting scenarios and room layouts.

The 3 products we have purchased and are currently testing are…

- **Meeting Owl Pro**
  https://uk-shop.owllabs.com/products/meeting-owl-pro
- **Jabra Panacast & Speak 710** -
  https://www.jabra.co.uk/business/video-conferencing/jabra-panacast
- **Jabra Panacast 50** -
  https://www.jabra.co.uk/business/video-conferencing/jabra-panacast-50##8200-237

Each provides different benefits, with the Owl offering 360° degree camera, mic, and speaker functionality. The Jabra Panacast & Speak 710 are two small linked devices offering 180° panoramic video and omni-directional microphone and speaker. And the Panacast 50 is an intelligent video bar providing panoramic 180° video with 8 microphones and 4 speakers.

We will update on our trials with the 3 products.


Jabra Panacast & Speak 710


Jabra Panacast 50

# Apple Service Improvements

When we developed and implemented the Gardens & Museums IT Jamf Apple Service in 2019 and 2020 our main aim was to enhance the security of the Apple devices in line with University Information Security and to improve how we support Apple devices. The implementation of Jamf has proved incredibly beneficial and fulfilled these aims, whilst seamlessly enabling Working from Home.

Recently we have been looking into, and working on further improvements we can make to the Apple Service - some of which we plan to implement over the Summer.

### Single Sign On Login - Jamf Connect

For some time we have been investigating and working on how your University of Oxford Single Sign On Login could be implemented on Apple Computers across the Gardens & Museums. By using your University SSO username and password computer security could be further enhanced, whilst also offering one less username and password to remember.

We are pleased to say that we have been able to achieve this with an additional Jamf application called Jamf Connect (no link to IT Services CONNECT), which synchronises your Apple Login with your Oxford Single Sign On.

Computers installed from June onwards will have the SSO Login process already in place. For other computers we will begin the implementation this Summer and look to complete in the Autumn. All Apple users will be contacted directly before any changes are made and if you would like to be an early adopter please email it@museums.ox.ac.uk. Further information on Jamf Connect can be found here: https://www.jamf.com/products/jamf-connect/.

### Apple iMac Replacement

We are making progress on the replacement of Apple iMacs across the Gardens & Museums, focusing on those machines which have recently been proving problematic. We will now move on to replacing those which will not be able to be updated to the latest version of MacOS. We will directly contact our colleagues who will be impacted.

### Code42 - Cloud Backup Solution

We have been looking into a new data backup solution for our Apple Computers and recently we have become part of an IT Services trial of Code42 (https://help.it.ox.ac.uk/hfs-code42-cloud-backup-service), which has proved to be an efficient and easy to use back-up solution.  I am happy to confirm Code42 has been approved for University use and is now the recommended application for securing University data on your desktop and laptop.
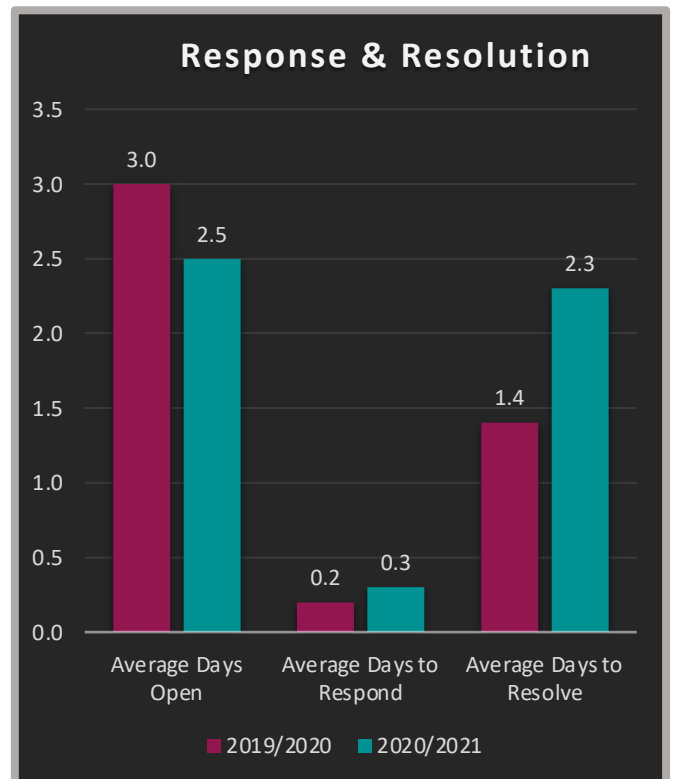
We will now be looking into the best means to make this available across the Gardens & Museums Apple Computers.

# Service & Support Statistics –
# 1st February 2021 to 30th April 2021

Quarter 3 was once more an incredibly busy time, with the number of requests reflecting this. This was particularly evident with work on MFA (120 requests), Networking activities across G&M (150 requests), the Apple Service (87 requests) and Software Support (69 requests).

| | |
|---|---|
| Support Requests Received in Period | 1014 |
| Support Requests Resolved in Period | 1012 |
| Average Days to Respond | 0.3 |
| Average Days to Resolve | 2.3 |

Significant effort and work also took place in the areas of Finance and Procurement (56 requests) with new IT equipment being sourced and ordered to cover the evolving demands of hybrid working. Also Adobe software licencing agreements were investigated during this period and renewed.



Requests Received & Resolved

Requests Received: 2019/2020 = 1008, 2020/2021 = 1014
Requests Resolved: 2019/2020 = 986, 2020/2021 = 1012



Response & Resolution

Average Days Open: 2019/2020 = 3.0, 2020/2021 = 2.5
Average Days to Respond: 2019/2020 = 0.2, 2020/2021 = 0.3
Average Days to Resolve: 2019/2020 = 1.4, 2020/2021 = 2.3

Numbers were expected to be lower than last year as the requests received in the same period were incredibly high due to the move to Working from Home and the IT challenges this brought and the support required. Therefore these high numbers are unexpected but likely impacted by major activities including the MNH Wiring Project and the implementation of Multi-Factor Authentication.

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

# 2020/2021 GMIT Roadmap

| Project/Activity | August 2020 | September 2020 | October 2020 | November 2020 | December 2020 | January 2021 | February 2021 | March 2021 | April 2021 | May 2021 | June 2021 | July 2021 | 2021/2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **INFORMATION SECURITY** | | | | | | | | | | | | | |
| JAMF: Apple Management Service | Jamf SSO Integration | | MacOS 10.15 Upgrade | | | MacOS 10.16 Testing | | Jamf Connect Testing, Configuration & Documentation | | | MacOS 10.16 Upgrade | | Gardens & Museums: iOS Jamf Deployment * |
| Identity and Access Management | Jamf SSO Integration | Zoho Vault SSO | Restorepoint SSO | AWS Single Sign On | VDC Single Sign On | CMS DAMS SSO | Self Managed Computer SSO | Jamf Connect Testing, Configuration & Documentation | | Artifax SSO | | | Jamf Connect Apple SSO Deployment |
| SSO Multi-Factor Authentication | | | Work with IT Services to provision and support MFA Implementation - includes comms, support, liaison, meetings, documentation | | | | | | | | | | |
| Windows 10 (non-CONNECT) | | | | PRM Security Machine Win7 to Win10 | Self-Managed Win10 Update | Commercial POS Win10 Update | | | Ashmolean Harkness Net2 PC Configuration & Decommisioning of Server | | Windows Management Solution Investigation & Development for Non-Connect Machines | | |
| GLAM Password Management | | Service Investigation & Configuration | | | | | | | | | Service Investigation & Configuration & Deployment | | |
| GLAM VPN | Design and planning | Testing and implementation | | PRM Archive Server Access | | | | | | | | | |
| **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 | | |
| OSM - Review & Change | | | Current Service & Category Review | Establish required Services & Categories | Implement Changes | Review of changes | | | | | | | |
| Asset & Licence Management | | | | | | DNS Audit | | G&M Adobe Licencing Review & Renewal | | | G&M - All sites Equipment Audit | | |
| Pitt Rivers Museum Filemaker 18 Upgrade | FMS Deployment | | FM Pro Deployment | | | | | | | | | | |
| **SERVICE IMPROVEMENT** | | | | | | | | | | | | | |
| Continual Service Improvement | Quarterly Newsletter Creation | Skills Matrix 2020 | Quarterly Newsletter Creation | | | Quarterly Newsletter Creation | | | Quarterly Newsletter Creation | | | Skills Matrix 2021 | |
| Apple Service Improvement | iMac provision analysis | Procurement & Inventory | | Configuration | | | | iMac Deployment | | Jamf Connect Apple SSO Deployment | | | |
| Gardens & Museums IT Website | Design & Development | | Content Creation & Upload | Go Live | | | | | Site Review & Implementation | | | | |
| **INFRASTRUCTURE IMPROVEMENT** | | | | | | | | | | | | | |
| Public Wi-Fi | | Server Move to University Datacentre | Switch Move to University Datacentre | OBG Go Live * | | | | | | Aerohive Platform Migration | | | |
| Infrastructure Improvements | Op Manager Service Configuration | PRM Converged Network | | | Op Manager Service Deployment | | Cruz Training | | Cruz Deployment * | | | | |
| Cloud Services | | Design , Develop and Optimise - ongoing work with AWS and Azure Active Directory along with consultancy to Projects. | | | | | | | | | | | |
| Hanwell Condition Monitoring System | | Hanwell Rollout : Botanic Gardens | Hanwell Rollout : Harcourt Arboretum | Hanwell Mobile Application to G&M Locations | | | | | | | | | |
| Infrastructure Auditing and Documentation | Firewall Audit | | Switch Auditing and Documentating * | IP Addressing * | Infrastructure Documentation * | | Firewall Training | | | | | | |
| Harcourt Arboretum Wi-Fi Implementation | Drone Photogrammetry | Council planning | Initial Rollout * | Deployment and commissioning * | | | | | | | | | |
| Upper Heyford Shelter 7 Provisioning | Wireless and phones | | | | | | | | | | | | |
| Upper Heyford Shelter 8 Provisioning | Testing , Deployment and Comissioning | | | | | | | | | | | | |
| Natural History Museum Wiring (G&M MUS561) | Cabling and Switch deployment * | | | | | | | | | | | | |
| Natural History Museum Chorus Deployment | | MNH Chorus - Phone Configuration and Deployment * | | | | | | | | | | | |
| Visitor Counter System | Visitor Counter System Deployment | PRM Deployment | Live Occupancy System Deployment | HSM Deployment * | | Explore rollout to other GLAM Locations | | | | | | | |
| Access Control systems | SALTO Deployment - Harcourt | SALTO Deployment - PRM | SALTO Deployment - HSM * | SALTO Cabinet Access Pilot | Net2 - Harkness * | SALTO Documentation * | | | | | | | |
| **PROJECTS** | | | | | | | | | | | | | |
| Gardens & Museums Microsites Project (MUS739) | Project to run throughout 2020/21 - Migration of 106 sites | | | | | | | | | | | | |
| Research & Innovation | Project to run throughout 2020/21 - items will be added and updated as planned and progressed | | | | | | | | | | | | |
| CTRC (Reuben College ) | CTRC / Project to run throughout 2020/21 - items will be added and updated as planned and progressed | | | | | | | | | | | | |
| Sustainability Initiatives | Plastic Free Cabling - PRM | E-metering | Aircon Comms Cabinet - MNH | Renewables in IT Infrastructure; Green IT; Re-use & re-purposing; Energy Optimisation; Cloud Strategy; Best Practice | | | | | | | | | |
| Display/Interactive | | | | OBGA Dislay PC: Liaison, Guidance & Hardware Quotations | | OBGA Display PC: Computer configuration and deployment | | MNH Interactive: Liaison, Configuration & Deployment | | | | | |
| OBGA Education iPads | | | | OBGA Education iPads: Liaison, Guidance & Hardware Quotations | | OBGA Education iPads; Procurement (quotation reviews & guidance) | | ASH PE & Research iPads: Liaison & Quotations | OBGA: Device Configuration; Device Management; Deployment ASH: Device Configuration; Device Management; Deployment | | | | |
| G&M AV Consultation | | | | | | | | Ashmolean HLT / PRM - Liaison &discussion | Ashmolean HLT / PRM - Supplier support; Procurement, configuration & deployment of Lectern PC; System documentation | | | | |
| Hybrid Working | | | | | | | | Product Investigation | Liaison with Suppliers & Procurement | Testing & Documentation | Deployment | Further Investigation, Documentation and Review | |
| CMS & DAMS - MUS764 | Project to run throughout 2020/21 | | | | | | | | | | | | |
| Online Collections - MUS765 | Project to run throughout 2020/21 | | | | | | | | | | | | |
| Ashmolean Lower Ground Gallery | Project to run throughout 2020/21 | | | | | | | | | | | | |
| Stores Move Project | Project to run throughout 2020/21 | | | | | | | | | | | | |

Please Note: Some tasks *may* be rescheduled in the event of further Covid-19 restrictions. The latest version can be found on the Gardens & Museums IT Website: https://it.museums.ox.ac.uk/article/documents