# Gardens & Museums IT

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## Welcome

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

Since the last edition of the newsletter in September so much has gone on! The Natural History Museum, Pitt Rivers Museum and History of Science Museum joined the Botanic Garden, Harcourt Arboretum and Ashmolean Museum in re-opening to the public with great success.

It was incredibly sad to see them once more close as the unpredictability of The Covid-19 Pandemic continues to impact our work and home lives. We all patiently wait for the Museums to once more open their doors to the public - fortunately the Botanic Garden and Harcourt Arboretum were able to remain open.

We have continued to work throughout this time, and as we look to the New Year in hope of better times (with fingers crossed) please read on for news on what we've been up to, and some important items for 2021.

Finally, I hope you all have a restful and enjoyable break, with some normality and time with friends and family over the festive period.

Carl

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

# What's been going on?

### Natural History Museum - Mystery at the Museum

Dan has been supporting the exciting Natural History Museum event 'Mystery at the Museum' starring wildlife presenter Steve Backshall. Dan has been running cables and creatively installing wireless access points to provide connectivity across a winding route within the museum. This unique event will take place on the 4th of December, and we're all incredibly excited for the evening!

### GLAM VPN

We have developed a GLAM specific VPN to allow access to specific internal GLAM resources. The solution is currently being tested within the Pitt Rivers DAMS Project and if successful will be deployed for other appropriate scenarios across the Gardens & Museums.

### Pitt Rivers Museum Security Machine - Windows 7 to Windows 10 Migration

A piece of work which has been on-hold for some time as a number of PRM Security Operations were adjusted, the PRM Security Machine has been successfully migrated from Windows 7 to Windows 10.

### Apple Catalina OS Upgrade

Beginning with the Pitt Rivers we have been actively upgrading the operating system on Apple computers on site and providing advice and support for those systems off site.
The upgrade ensures continued system security and compliance with Information Security guidelines.

### Other activities of note…

- Natural History Wiring Project - re-wiring of the museum and network improvements continue (including commissioning of eco-friendly airconditioned cabinets).
- Harkness Wireless Implementation for Move Project
- Salto Access Control at History of Science Museum

# What's coming?

### Gardens & Museums IT Website

The Gardens & Museums IT Website is nearly complete, and we hope to fully launch this month. An email will be sent once live!

### Other activities of note…

- MNH - Configuration and deployment of new network equipment and Chorus Phones
- OSM Service Desk Software Review - we are currently reviewing our service management platform (OSM) in view to identifying improvements in operations.
- MFA - please see page 3 of this newsletter
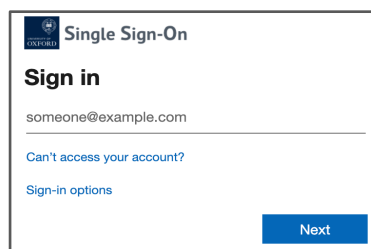
# SSO Multi-Factor Authentication

### Overview

As I hope you're all aware, the University is currently implementing Multi-factor Authentication (MFA) on our Single Sign-On (SSO) accounts across the University in a 2-stage project. Our SSO accounts are used to access a number of key University systems including Nexus Email and Microsoft Teams. As login is via a Username and Password only, this can leave them vulnerable to compromise via Phishing Attacks. These risks have increased this year, as have the number of compromises with the onset of Remote Working, hence the reason to implement MFA.

**Please see: https://itservicesprojects.web.ox.ac.uk/multi-factor-authentication-project for a full overview of the project.**

### Stage 1 - Replacing the SSO login page

Stage 1 was completed on the 11th of November, with the Webauth page adjusted to a University of Oxford branded Microsoft page. Your username will now need to be entered in full to obtain access with @OX.AC.UK (e.g. oxfd1234@OX.AC.UK), but your password will remain the same.

### Stage 2 - Second step authentication

A second step will be added for logging in with your SSO, which will consist of entering a code or authorising access to the account. This additional step will be implemented from the 7th of January on an A-Z basis (a timeline can be seen on the Project pages). This can be achieved in a number of ways, and we would strongly encourage everyone to think about which method of authentication they would prefer to use in advance of implementation.

- **Authentication App:** A Microsoft Authentication app is available for iOS and Android devices. This will prompt when authentication is requested from a SSO service, at which point you simply tap on the prompt to permit access.

- **SMS or Phone Call:** Receiving an SMS on your mobile phone, or a voice call on landline or mobile with a code that you enter on the device you are logging into.

- **Hardware Token:** Using a small USB key, which you press a button to accept access (Hardware Tokens need to be purchased - if this is your preference please email it@museums.ox.ac.uk for guidance).

The Gardens & Museums IT Team were successfully migrated on the 17th of November. Across the Team we are testing a number of options in order to familiarise ourselves with the change, and to help test and feed back to IT Services any issues in advance of this becoming fully live.

If you have any questions, please refer to the FAQ section on the Project pages or email it@museums.ox.ac.uk for guidance, and we will assist where possible.

# Remote Working & IT Equipment

As many of you are aware the Covid-19 Pandemic has had significant impacts on the the availability of certain pieces of IT equipment. In particular items that have been required to ensure continuation of communications and operations have been affected the most, such as webcams and headsets especially from major suppliers such as Logitech and Microsoft.

In the last Gardens & Museums IT Newsletter I wrote how IT Services were looking to provide a solution for across the University and that a number of webcams had been ordered by GLAM. I am happy to report that there are positive updates from both IT Services and Gardens & Museums IT.

### IT Services Update - CONNECT Users

IT Services are now (as of 12th November 2020) in a position to offer a solution to CONNECT users. If you use a CONNECT computer please discuss with your Line Manager as a process has been instigated with senior administrators in each Garden & Museum to establish the number required. If you are not sure of who this person is then please write to it@museums.ox.ac.uk and we can provide the information.



**Logitech 920s & 925e - the models which are on order.**

### Gardens & Museums IT Update

Although the webcams we have ordered (Logitech) are yet to be delivered, we have been working hard to provide an alternative solution for those with an urgent requirement. This work included extensive discussion with a number of suppliers, and the procurement and testing of a small number of other webcams and headsets.

I am happy to say that we have managed to secure a small supply of webcams from a lesser known supplier named Sandberg, and establish a source for Headsets as well.



**Sandberg USB Flex - the model we have been able to source.**

Since October the 16th we have successfully provided 33 webcams and 21 headsets across the Gardens & Museums to those with an urgent requirement. We have also put together a document which outlines the various working arrangements now in place (Working from Home; In the Office; Both) and additional IT Equipment which may be required, including recommended models and how they can be obtained.

If you are in need of a webcam or any other piece of IT Equipment to aid operations, or simply would benefit from a copy of the document outlined above please email it@museums.ox.ac.uk and we will respond as required.
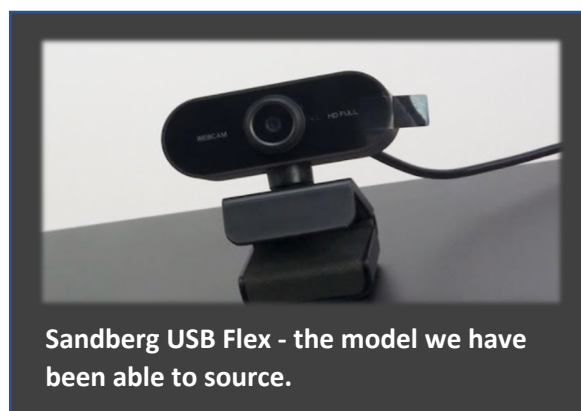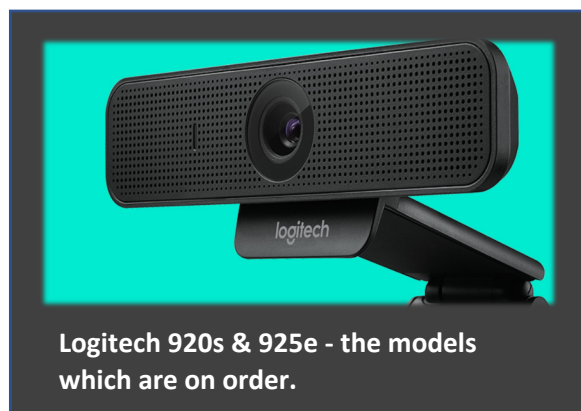
# Spotlight: Hanwell Monitoring at the Botanic Garden

During this year Hanwell Sensors have been installed in six locations at the Botanic Garden. Please find below some photos and an extract from Kate Prichard which describes the benefits of this work. A massive thank you to Kate for taking the time to update on the success of this project.

"Today the Botanic Garden collections include over 2000 plant species grown in 850m² of protected environments. Growing in the glasshouses are plants of cultural significance and other useful plants, providing food, shelter and medicine for peoples around the globe. The glasshouses are also home to many examples of species from ecosystems under threat in the wild. Alarmingly, there are species in the collection for which the wild status is unknown.

Erected in 1972, the glasshouses are long-overdue replacement. The structures are no longer fit for purpose and the climatic controls lack automation. The University and Botanic Garden are committed to replacement; however, cultivation challenges do remain.

Colleagues in University Estates have worked with us to improve the efficiency of the primary and secondary heating systems to create more stable environments. In addition to this, colleagues in GLAM IT have provided Hanwell sensors, installed in six of the glasshouses. These have been in position since summer and have been a real asset. The data produced by these sensors in combination with the data we receive from the BMS, have helped us to gain a more detailed understanding of individual climates. What has been a revelation is the data we now have for the relative humidity provided by the Hanwell sensors.

Reliable data and environments that are more consistent enable us to curate and cultivate the glasshouse collections more effectively. With greater confidence, we can form decisions about developing the collection, knowing with greater certainty that we will be able to cultivate these species well. This will culminate in better growth, flowering and fruiting across the glasshouse collection.

Our increased understanding of how individual climates behave both seasonally and patterns across day-night timeframes has many applications. As part of our commitment to reducing our CO2 emissions at the Botanic Garden, we are continually looking for opportunities to adjust how we curate and cultivate the collections. One is our intention to reduce the temperature at which we grow."

# 2020: The year that was...

In some ways it seems slightly premature writing about the past year at the end of November, but as we wait on news of what's next for the Gardens & Museums - and our personal lives - I'm reminded how "topsy-turvy" the year has been and how many unpredictable challenges it has presented! I'm usually one who is always planning ahead, but never has there been a time where I have lived so much in the "now".

We actually began planning for the Pandemic in late January 2020, trying to anticipate the impact, the effects on us personally, how we could work and continue to support you, and finally any new equipment or services which would be needed. A number of projects and activities were fast-tracked in the knowledge that they would prove pivotal if there was to be a requirement for extended Remote Working.

Despite our planning, when the Lockdown was announced it came as somewhat of a shock, but not one we could really think about the implications of, but one which required action. We set to supporting our colleagues as best as possible - the open sessions were a particular success in this, and something we hope to carry out more regularly once "normality" returns.

A lot of work has been carried out throughout this year despite the impact that Covid-19 has caused to both our working and personal lives. We have received (1st January to 31st November 2020) 3085 support requests, whilst continuing to keep response and resolution high despite the further challenges and time that supporting remotely brings. Many projects have also been delivered across the Gardens & Museums this year, including...

- Apple Management Platform: Implementation of Jamf to Gardens & Museums Apple Computers
- Commercial Point of Sale Machines: Devices migrated from Windows 7 to Windows 10 in-line with University Information Security requirements.
- User Feedback Survey: Carried out to capture feelings towards the IT provision and how it can be improved.
- Salto Access Control: New door control system implemented at Pitt Rivers Museum, Harcourt Arboretum and History of Science Museum
- Networking at Shelter 7 & Shelter 8: Networks provisioned at both locations.
- Hanwell Monitoring Solution: Implemented at Pitt Rivers Museum, Botanic Garden and History of Science Museum

Despite the successes achieved, best efforts and constant adjustments, the challenges of the year have impacted us physically and emotionally, as I'm sure is the case with many. Never have the lines between work and home life been so blurry, and a balance to life so difficult to obtain. But I am fortunate to be part of a close-knit team who have actively looked out for each other, and offered extensive support throughout the year as and when it has been required. I am very grateful to the entire team for their achievements, but crucially their continued care and support towards myself and each other. I am also thankful to those within GLAM who have actively reached out to us during this year, to check how we are, and to thank us for our efforts - we are extremely grateful and appreciative of these kind gestures.

Finally, as we close in on a much needed extended break, thank you all for your collective support and patience as we look forward in hope for a more settled, stable and normal 2021!
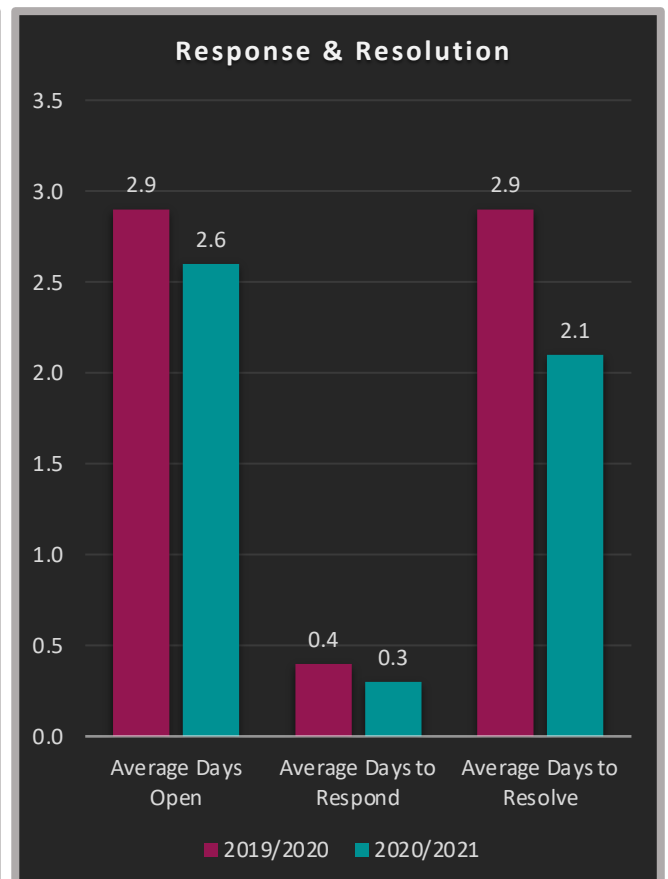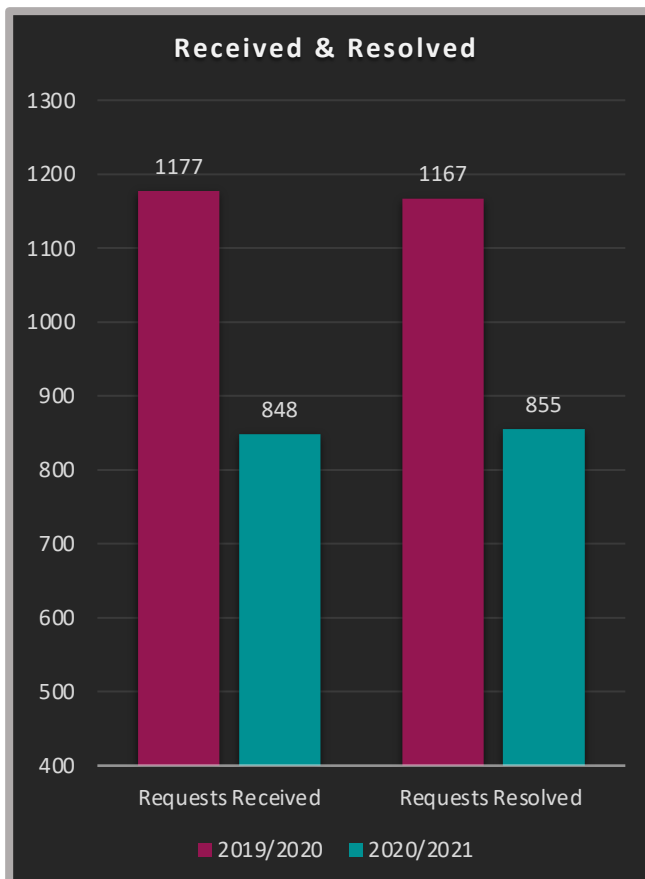
# Service & Support Statistics – 1st August 2020 to 31st October 2020

Quarter 1 of the 2020/2021 Academic Year saw an increase in support requests from the previous (Quarter 4 2019/2020) as all sites re-opened with Covid-19 restrictions eased.

| Support Requests Received in Period | 848 |
|---|---|
| Support Requests Resolved in Period | 855 |
| Average Days to Respond | 0.3 |
| Average Days to Resolve | 2.1 |

As working requirements changed, with some beginning to spend time in the office as well as working from home, there was a heightened requirement for additional support and extra equipment. Additionally many colleagues who had been on Furlough due to the Pandemic returned to work which caused many questions relating to the availability of hardware, reminders of processes and how to access systems and services.

The team coped admirably during this increase in demand (alongside project work,) continuing to provide a responsive and effective IT provision.

## Received & Resolved

| | Requests Received | Requests Resolved |
|---|---|---|
| 2019/2020 | 1177 | 1167 |
| 2020/2021 | 848 | 855 |

## Response & Resolution

| | Average Days Open | Average Days to Respond | Average Days to Resolve |
|---|---|---|---|
| 2019/2020 | 2.9 | 0.4 | 2.9 |
| 2020/2021 | 2.6 | 0.3 | 2.1 |

# 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 | | Gardens & Museums: iOS Jamf Deployment * | | MacOS 10.16 Testing | | MacOS 10.16 Upgrade | | | | |
| 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 | | Artifax SSO | | | | |
| SSO Multi-Factor Authentication | | | Work with IT Services to provision and support MFA Implementsation - includes comms, support, liaison, meetings, documentation | | | | | | | | | | |
| Windows 10 Upgrade (non-CONNECT) | | | | PRM Security Machine Win7 to Win10 | Self-Managed Win10 Update | Commercial POS Win10 Update | | | | | | | |
| GLAM Password Management | Service Configuration | Service 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 | | | | | | | | |
| Asset Management | | | | | | DNS Audit | | G&M - All sites Equipment Audit | | | | | DNS 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 | | IT Feedback Survey sent to colleagues | Quarterly Newsletter Creation | IT Feedback Survey results | | Skills Matrix 2021 |
| Apple Service Improvement | iMac provision analysis | Procurement & Inventory | Imaging | Deployment | | | | Apple SSO Implementation * | | | | | |
| 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 * | | | | | | | | | |
| 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 | 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 (106 sites) | | Project to run throughout 2020/21 - items will be added and updated as planned and progressed | | | | | | | | | | | |
| 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 | | | | | | | | | |

**Please Note: Some tasks \*may\* be rescheduled in the even of further Covid-19 restrictions.**