

## **Item: 4**

**Asset Management Sub-committee: 21 March 2023.**

**Information Technology Capital Replacement Programme.**

**Report by Corporate Director for Neighbourhood Services and Infrastructure.**

### **1. Purpose of Report**

To consider the proposed Information Technology Capital Replacement Programme for financial year 2023/24, together with indicative programme for 2024/25.

### **2. Recommendations**

**It is recommended:**

#### **2.1.**

That the Information Technology Capital Replacement Programme for 2023/24, together with the indicative programme for 2024/25, attached as Appendices 1 and 2 respectively to this report, to be funded from the allocation of £420,000 per annum within the Council's current approved capital programme, be approved.

#### **2.2.**

That powers be delegated to the Corporate Director for Neighbourhood Services and Infrastructure, in consultation with the Head of Finance, to adjust the two-year programme, referred to at paragraph 2.1 above, as variations arise in order to maximise use of the annual capital allocation.

### **3. Background**

#### **3.1.**

Any organisation that depends on reliable and up to date information technology to deliver its services needs to allocate a proportion of its budget to an annual replacement programme.

### **3.2.**

In April 2014, the Council agreed that an annual amount of £420,000 should be allocated to support a programme of IT Replacement. This covers devices across all Council services, and the infrastructure hardware used to deliver the services that all staff are increasingly dependent upon. This includes servers, end-user devices, fixed-wireless network links, firewalls, data storage and backup systems. It also includes server, laptop and desktop PC assets purchased by other services, but does not include other technology such as smartboards, plant and machinery or control systems.

### **3.3.**

As detailed in the Information and Communications Technology Asset Management Plan, the replacement value of the Council's tangible information technology assets was valued at £6,101,500. If the asset replacement programme assumed that 20% of the assets should be replaced every year, the budget required would be in the region of £1,220,000.

### **3.4.**

As the budget is not this amount, a focus on the most urgent and business critical systems and infrastructure is required, and this is the approach that is normally taken.

## **4. Capital Replacement Programme**

### **4.1.**

As the Council becomes ever more reliant on information and communications technology, it is important that the replacement programme is sufficient to ensure service continuity and resilience. Maintaining the information technology estate to ensure that it is current, supported, and reliable with the capacity to meet the continuous growth in demand is fundamental to delivering ongoing services effectively.

### **4.2.**

It is relevant to note the policy obligations that the Council must maintain an information technology infrastructure that remains "in support" with the vendor and replace technology once a manufacturer declares technology at "end of support."

### **4.3.**

The programme covers physical IT assets across the main infrastructure categories of the Information and Communications Technology Asset Management Plan 2021 to 2025, approved by Council in June 2021.

#### **4.4.**

Whilst there have been considerable changes to the delivery of many services via the use of cloud services, the majority of the information technology asset base is still delivered “on premise” and therefore maintaining the continuity, capacity, currency and resilience of these remains a priority. These include:

- Equipment and technology used in server room locations in which the IT systems are housed.
- The physical and virtual servers on which IT systems run.
- The data storage systems and backup facilities on which the Council’s data is held.
- The Security Gateways that protect the Council’s networks and permits secure access to the Internet.
- The Wide Area Network communications links which connect Council sites to one another and to the Internet.
- The Local Area Network and Wi-Fi infrastructure within Council premises.
- The desktop and laptop end-user devices across the Council Offices and schools used by Council staff, teachers and pupils.

### **5. Detail of Capital Replacement Programme**

#### **5.1.**

The proposed Information Technology Capital Replacement Programme for 2023/24 is attached as Appendix 1 to this report. An indicative programme for 2024/25 is attached as Appendix 2 and will be refined as the programme for 2023/24 is delivered.

#### **5.2.**

With regard to Datacentre Replacements, the Council has two main datacentre rooms, plus additional network distribution rooms, network rooms and cabinets across Council premises. In these are IT communications cabinets, server racks plus cable management, uninterruptable power supplies (backup batteries) and, in the case of larger sites, environmental monitoring and remote management links which allow the sites to be monitored and supported remotely.

##### **5.2.1.**

In particular, the uninterruptable power supplies across Orkney’s IT estate have a short mean time between failures and therefore are a priority for ongoing replacement.

##### **5.2.2.**

Responsibility for building fabric in terms of power supply, heating, ventilation, and air-conditioning sits outside of IT expenditure.

### **5.3.**

The server budget covers the replacement of servers that are end of support lifetime and cannot viably be replaced with cloud alternatives. The focus will be on the replacement of IT servers which are running Windows server 2012 R2 that fit these criteria and where the ongoing operational requirement is for on-premise hosting of these servers.

#### **5.3.1.**

The data backup infrastructure is constantly in need of renewal as older storage arrays require expansion or retirement, particularly in schools.

### **5.4.**

The Local Area Network Infrastructure budget for financial year 2023/24 covers the ongoing replacement of Wi-Fi controllers, additional compatible wireless access points and also the network switches that support all of the network traffic across the Council's technology estate.

#### **5.4.1.**

The Wi-Fi equipment, which is heavily used, is struggling to meet the emerging demands for good cybersecurity and increasing usage. Pressures on increased usage and emerging demands of better resilience, more capacity and stronger cybersecurity again are the drivers for change. New Wi-Fi technology uses Wi-Fi 6, which brings greater speed and bandwidth. To be compatible with new end user devices the Wi-Fi infrastructure will need to be updated throughout the estate.

### **5.5.**

Of the Security Gateways which protect the Council's networks and permit secure access to the Internet and cloud hosted systems, no equipment requires replacement at present.

### **5.6.**

The Council's Wide Area Network connects many of the Council premises securely via fixed wireless links to the main mast infrastructure. In particular, two links are being targeted for replacement due to age and latency issues. However, this infrastructure is particularly vulnerable to the weather and other external issues which can impact its performance, and as more fibre connectivity becomes available the use of this technology will become less widespread.

## **5.7.**

As in financial year 2022/23, the main priority is ensuring the estate of PC laptops and desktops is kept up to date. The particular focus over the next two years will be the rollout of Windows 11 devices to both the corporate and the schools estates. Windows 10, which is prevalent on the network, will cease to be supported with necessary security updates in October 2025. IT will therefore replace the older devices with new and rebuild the later models from Windows 10 to Windows 11. However, there are considerable numbers of older devices to be replaced and it is estimated that 400 units will be replaced per year out of an estate of approximately 4,000, with the remaining gap being filled by the COVID-19 recovery funding.

## **5.8.**

The COVID-19 recovery funding has been invaluable in progressing significant change in updating the Council's IT Infrastructure. In financial year 2022/23 this has enabled work in the following areas:

### **5.8.1.**

Schools IT have, to date, placed orders to the value of £310k out of the £500k allocated with, at the time of writing, £128k having been invoiced. This has predominately been spent on Interactive displays for schools, replacing the non-working smartboard devices. Additional expenditure is due in financial year 2023/24 to continue with this programme, in the region of £180k. In addition to networking switch replacement has been accelerated to make ready for schools Wi-Fi upgrade which is being funded through the capital replacement programme.

### **5.8.2.**

Corporate IT have, to date, placed orders to the value of approximately £351k out of the £500k allocated with, at the time of writing, £129k having been invoiced. This has been spent on a variety of projects including the upgrade of the Stromness network to bring the Warehouse Building in Stromness onto a new fibre network along with the Stromness Harbour Masters, Stromness Marine VTS, Stromness Primary, Stromness Academy and Hamnavoe House. In addition, Immutable backups have been purchased and installed at both the main datacentre at King Street, Kirkwall, and the Disaster Recovery site at Marine Services at Scapa. Additional new Universal Power Supplies (UPS) to aid in power supply at the School Place communication hub have been installed, with further work required this coming financial year which will be funded through the normal capital replacement programme. In addition, a new networking system to enable more automation has been ordered to enable the same number of staff to maintain the ever-increasing network and WiFi infrastructure at the Council. No additional orders are to be made on this portion of the fund.

### **5.8.3.**

Windows 11 funding has enabled IT to plan for the replacement of Windows 10 with orders placed to the value £250k from the £400k allocated with orders for new devices having been made to the remaining value of the fund. Any further devices will be funded from the normal capital replacement programme.

## **6. Corporate Governance**

This report relates to the Council complying with financial processes and procedures and therefore does not directly support and contribute to improved outcomes for communities as outlined in the Council Plan and the Local Outcomes Improvement Plan.

## **7. Financial Implications**

### **7.1.**

The capital programme includes an approved provision of £420,000 in financial years 2022/23 and 2023/24 in respect of the Information Technology Capital Replacement Programme.

### **7.2.**

Development of multi-year plans for maintaining and improving the Council's Information Technology, as set out in this report, is consistent with the Council's approach to corporate asset management planning and should over time lead to a more effective use of Council's resources.

### **7.3.**

For expenditure to be considered an improvement or enhancement and count as being capital in nature it must lengthen substantially the useful life of the asset, increase substantially the open market value, or increase substantially the extent to which the asset can be used.

### **7.4.**

It is a requirement of the Capital Project Appraisal process that all planned capital improvement works of £150,000 and above per asset or group of assets, and including works to be delivered over multiple phases, be developed into individual Capital Project Appraisal business cases for formal review and approval as may be considered appropriate going forward.

## **8. Legal Aspects**

Regularly monitoring and updating the IT Capital Replacement Programme helps the Council to meet its statutory obligation to secure best value.

## **9. Contact Officers**

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## **10. Appendices**

Appendix 1: Information Technology Replacement Programme 2023/24.

Appendix 2: Information Technology Indicative Programme 2024/25.

## Information Technology Programme 2023/24.

Asset Group	Project	Reason	Sub Total	Total.
<b>Datacentre Replacement</b>	Server Room Replacement	Replacement of Server and Network Room Equipment including UPS (backup power), Remote Management, Monitoring and Access Controls.	£40,000	<b>£40,000</b>
<b>Server Replacements</b>	Replacement of servers that are end-of-life.	Replacement of the servers that are at end of operational lifetime and reaching or beyond vendor support.	£15,000	<b>£25,000</b>
	Replacement of Storage and Backup Infrastructure	Replacement of storage that is approaching capacity and enhance the resilience of data backups.	£10,000	
<b>Local Area Network Replacement</b>	Wi-Fi Modernisation	Renew and improve Wi-Fi systems to maintain capacity and currency of support, replacing end of life equipment including the introduction of 6 <sup>th</sup> generation Wi-Fi 6 services	£20,000	<b>£65,000</b>
	Replacement of Network Switches	Replacement of Network Switches that are end of support. Ensuring devices are in current support is an essential objective in maintaining Public Sector Network Accreditation in line with the Public Sector Action Plan	£35,000	
<b>Security Gateways</b>	Proxy/Firewall Replacements	There are none forecast as requiring replacement in this year.	£0	<b>£0</b>
<b>Wide Area Network Replacement</b>	Replacement of End of Life and Poor Performing Radio Wireless and Microwave Mast Equipment	To replace core Fixed Wireless and Microwave Radio Links to ensure connectivity between our main mast sites and OIC locations.	£30,000	<b>£30,000</b>
<b>Device Replacement</b>	Replacement of end User Devices (Corporate).	To replace end of life end-user devices in Council Offices. This will fund approximately 125 devices from an asset base of ca 1200 devices.	£70,000	<b>£230,000</b>
	Replacement of end User Devices (Schools).	To replace end of life end-user devices in Schools. This will fund approx. 275 devices across 22 schools from an asset base of ca 3000 devices.	£160,000	
<b>Other</b>	Failures and Emergency Replacements of Capital Equipment.	Allocation to replace failures not covered by repairs, and any systems that fail security audit requirements. Particularly WAN wireless	£30,000	<b>£30,000</b>
			<b>Total</b>	<b>£420,000.</b>



## Information Technology Indicative Programme 2024/25.

Asset Group	Project	Reason.	Sub Total.	Total.
<b>Datacentre Replacement</b>	Server Room Replacement	Replacement of Server and Network Room Equipment including UPS (backup power), Remote Management, Monitoring and Access Controls.	£25,000	<b>£25,000</b>
<b>Server Replacements</b>	Replacement of servers that are end-of-life.	Replacement of the servers that are at end of operational lifetime and reaching or beyond vendor support.	£25,000	<b>£35,000</b>
	Replacement of Storage and Backup Infrastructure	Replacement of storage that is approaching capacity and enhance the resilience of data backups.	£10,000	
<b>Local Area Network Replacement</b>	Wi-Fi Modernisation	Renew and improve Wi-Fi systems to maintain capacity and currency of support, replacing end of life equipment including the introduction of 6 <sup>th</sup> generation Wi-Fi 6 services	£20,000	<b>£55,000</b>
	Replacement of Network Switches	Replacement of Network Switches that are end of support. Ensuring devices are in current support is an essential objective in maintaining Public Sector Network Accreditation in line with the Public Sector Action Plan	£35,000	
<b>Security Gateways</b>	Proxy/Firewall Replacements	There are none forecast as requiring replacement in this year.	£0	<b>£0</b>
<b>Wide Area Network Replacement</b>	Replacement of End of Life and Poor Performing Radio Wireless and Microwave Mast Equipment	To replace core WAN WIFI equipment to ensure connectivity between our main mast sites and care homes.	£45,000	<b>£45,000</b>
<b>Device Replacement</b>	Replacement of end User Devices (Corporate).	To replace end of life end-user devices in Council Offices. This will fund approx. 125 devices from an asset base of ca 1200 devices.	£70,000	<b>£230,000</b>
	Replacement of end User Devices (Schools).	To replace end of life end-user devices in Schools. This will fund approx. 275 devices across 22 schools from an asset base of ca 3000 devices.	£160,000	
<b>Other</b>	Failures and Emergency Replacements of Capital Equipment.	Allocation to replace failures not covered by repairs, and any systems that fail security audit requirements. Particularly WAN wireless	£30,000	<b>£30,000</b>
			<b>Total</b>	<b>£420,000.</b>