Item: 5

Asset Management Sub-committee: 23 March 2021.

Information Technology Capital Replacement Programme.

Report by Executive Director of Development and Infrastructure.

1. Purpose of Report

To consider the proposed Information Technology Capital Replacement Programme for financial year 2021/22 and indicative programme for 2022/23.

2. Recommendations

The Sub-committee is invited to note:

2.1.

That the current approved capital programme includes an annual provision of £420,000 in respect of the Information Technology Capital Replacement Programme.

It is recommended:

2.2.

That the Information Technology Capital Replacement Programme for 2021/22, together with the indicative programme for 2022/23, to be funded from the allocation of £420,000 per annum within the approved capital programme, attached as Appendix 1 to this report, be approved.

2.3.

That powers be delegated to the Executive Director of Development and Infrastructure, in consultation with the Head of Finance, to adjust the two-year programme, referred to at paragraph 2.2 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.

3.3.

As detailed in the Information and Communications Technology Asset Management Plan, the total full replacement value of Information and Communications Technology Assets across the Council is estimated at £9,500,000. 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 £1,900,000. 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 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 2016 to 2020, approved by Council in December 2016.

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 2021/22 is attached as Appendix 1 to this report. An indicative programme for 2022/23 is attached as Appendix 2 and will be refined as the programme for 2021/22 is delivered. Further detail on the individual elements is provided below.

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 four IT servers that fit this 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.

5.4.

The Local Area Network Infrastructure budget for financial year 2021/22 covers the ongoing replacement of wireless 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.

5.5.

Of the Security Gateways which protect the Council's networks and permit secure access to the Internet and cloud hosted systems, one firewall will need to be replaced as it has ceased vendor support.

5.6.

The Council's Wide Area Network connects many of the Council premises securely via fixed wireless links to the main mast infrastructure. Delivering a high level of availability to keep the masts connected is essential and, therefore, there is a requirement to replace the current link between the Council Offices and the main mast site.

5.7.

Finally, in financial year 2021/22, the budget will see an increased portion allocated on the curriculum estate and the replacement/refurbishment programme for the schools' laptop and PC devices. With approximately 2,700 devices across Orkney's 22 schools, the programme will allow for the replacement of 275 of these. Given that some schools are still using devices from 2009, the main focus will be to replace the oldest devices first, as far as practical.

5.7.1.

Additionally, the rolling programme of replacement of the 1,200 corporate laptops will continue to address replacement of the oldest 10% of the devices.

6. Corporate Governance

This report relates to the Council complying with its 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 2021/22 and 2022/23 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 2021/22.

Appendix 2: Information Technology Indicative Programme 2022/23.

Appendix 1.

Information Technology Replacement Programme 2021/22.

Asset Group	Project	Reason.	Sub Total.	Total.
Datacentre Replacement	Server Room Replacement	Replacement of Server & Network Room Equipment including UPS (backup power), Remote Management, Monitoring and Access Controls.	£8,000	**£8,000**
Server Replacements	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.	£24,000	**£33,000**
	Replacement of Storage and Backup Infrastructure	Replacement of storage that is approaching capacity and enhance the resilience of data backups	£9,000	
Local Area Network Replacement	Wi-Fi Refresh	This is to renew and improve Wi-Fi systems to maintain capacity and currency of support, replacing end of life equipment.	£50,000	**£65,000**
	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	£15,000	
Security Gateways	Firewall Replacements	Replacement of a firewall which will be no longer "in current support".	£35,000	**£35,000**
Wide Area Network Replacement	Replacement of End of Life and Poor Performing Radio Wireless and Microwave Mast Equipment	Replacement of connections to the main Mast Infrastructure, to ensure resilience of the main telecoms hub which connects Council sites across Orkney.	£15,000	**£29,000**
		Replacement of Radio Wireless Links to the secondary Mast site which serves connectivity to South Isles sites	£14,000	
Device Replacement	Replacement of end User Devices (Corporate).	To replace end of life end-user devices in Council Offices. This will fund approx. 120 devices from an asset base of ca 1200 devices.	£70,000	**£230,000**
	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	
Other	Failures and Emergency Replacements of Capital Equipment.	Allocation to replacements arising from failures not covered by repairs, and replacement any systems that fail security audit requirements.	£20,000	**£20,000**
			Total	**£420,000.**

Appendix 2

Information Technology Indicative Programme 2022/23.

Asset Group	Project	Reason.	Sub Total.	Total.
Datacentre Replacement	Server Room Replacement	Replacement of Server & Network Room Equipment including UPS (backup power), Remote Management, Monitoring and Access Controls.	£4,000	**£4,000**
Server Replacements	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. There is an increased number likely to require replacement in financial year 22/23	£32,000	**£37,000**
	Replacement of Storage and Backup Infrastructure	Replacement of storage that is approaching capacity and enhance the resilience of data backups	£5,000	
Local Area Network Replacement	Wi-Fi Refresh	This is to renew and improve Wi-Fi systems to maintain capacity and currency of support, replacing end of life equipment.	£50,000	**£65,000**
	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	£15,000	
Security Gateways	Firewall Replacements	At present there are none forecast as requiring replacement in this year.	£0	**£0**
Wide Area Network Replacement	Replacement of End of Life and Poor Performing Radio Wireless and Microwave Mast Equipment	Replacement of connections to the Secondary Mast site, to ensure continued access for OIC sites in Stromness and the West Mainland	£50,000	**£64,000**
		Replacement of Radio Sector Links that connect sites in Kirkwall to the main Mast infrastructure	£14,000	
Device Replacement	Replacement of end User Devices (Corporate).	To replace end of life end-user devices in Council Offices. This will fund approx. 120 devices from an asset base of ca 1200 devices.	£70,000	**£230,000**
	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	
Other	Failures and Emergency Replacements of Capital Equipment.	Allocation to replacements arising from failures not covered by repairs, and replacement of any systems that fail security audit requirements.	£20,000	**£20,000**
			Total	**£420,000.**