DECISION-MAKER:	CABINET		
SUBJECT:	HRA CAPITAL DIGITAL IMPROVEMENTS		
DATE OF DECISION:	16 April 2019		
REPORT OF:	Cabinet Member for Homes and Culture		
CONTACT DETAILS			
AUTHOR:	**Name:**	Deborah Smart Steve Smith	**Tel:**	023 8083 2854 023 8091 5161
	E-mail:	Deborah.smart@southampton.gov.uk Steve.smith@southampton.gov.uk		
Director	**Name:**	Paul Juan	**Tel:**	023 8083 2530
	E-mail:	Paul.Juan@southampton.gov.uk		

STATEMENT OF CONFIDENTIALITY
Not applicable

BRIEF SUMMARY

To support the delivery of the programme of work of the Housing Improvement Board Cabinet approval is sought for the investment of HRA Capital to deliver digital improvements and ongoing revenue savings.

The three main areas of investment areas are to:

1. procure a replacement to an existing IT housing system that is end of life and out of support to enable improved business and customer focused functionality
2. develop the necessary test environment to enable bespoke customisations and developments in the main IT housing application (Northgate) to be stripped out so that the additional modules fulfilling improved and necessary business requirements can be implemented
3. purchase new mobile devices for 250 Housing Operations staff to enable field and mobile working, offering improvements, efficiencies and modern ways of working

This is the second phase of the Housing Service IT & Digital plan which is designed to support improvements for tenants, housing staff and the council. This investment is to support the rationalisation and subsequent development of IT systems and equipment within housing enabling streamlined and digital business processes. Improvements, efficiencies and consistent ways of working can then be designed and delivered. The plan includes migrating the existing 125 users from the old systems and equipment onto the new platform and ways of working while also extending this to include a further 125 users, resulting in one place for the co-ordination of all Housing Operations staff, a single modern system that is very nearly "always-on". Alongside these improvements the new system will enable improved communications with tenants via text message and email.

The capital funding required has a return on investment within 5 years due to the anticipated revenue savings that can be generated through rationalisation of IT systems and savings or revenue generating improvements within housing. On top of these

financial considerations the new mobile platform will enable better communication with tenants and improved ways of working for staff.

RECOMMENDATIONS:		
	(i)	To approve the use of £800,000 of HRA Capital funding for digital improvements for housing including: • the procurement and implementation of a new mobile platform • the procurement and implementation of a new test system for Northgate housing • the procurement and implementation of 250 new mobile devices for housing operations staff
	(ii)	To delegate authority to the Service Director, Adults, Housing and Communities, following consultation with the Cabinet Member for Homes and Culture, to make any necessary amendments to the plans set out here as the procurement and implementation is undertaken.
REASONS FOR REPORT RECOMMENDATIONS		
1.	On a weekly basis, Housing operations are impacted by their existing IT systems which are complex, unreliable and slow, causing additional time and cost to deliver the service. This is frustrating to all stakeholders including: • Council tenants • front-line staff • support staff • managers • IT and digital staff This investment is to modernise housing's IT systems and the equipment used by front-line staff to enable all staff to work digitally and provide a consistent experience for housing tenants as well as reliable IT applications. This is inline with the Council's digital strategy.	
2.	When the current IT devices were purchased, no allowance was made for their replacement. As they are now over 4 years old, failures happen on a regular basis which disrupts service delivery and is frustrating for staff. This IT and digital plan request the capital funding to replace the devices while putting in place the ongoing funding to replace them (from the savings delivered).	
3.	This investment secures the necessary platform for change within housing, supporting improvements to the communication with tenants, modern ways of working for all, better management information, reporting and insight leading to improved use of resources and decision making.	
ALTERNATIVE OPTIONS CONSIDERED AND REJECTED		
4.	The Housing improvement Board considered two alternative options before recommending capital investment. These were: 1. To adopt an agile planning and delivery approach attempting to stabilise and fix existing systems where possible. This was a way of using existing IT and Digital resources to focus on reducing the downtime of existing systems and fixing known problems. The aim of this approach was to make the best use	

	of what was already in place, without updating, upgrading or decommissioning systems and attempting to make some changes that supported the aims and objectives of the Housing Improvement Board. Without capital investment, significant improvements to communication with tenants and extending digital ways of working to all staff in housing would not be possible, together with no guarantee that stability issues could be resolved with old versions of the software, this option was not taken forward. 2. To provide revenue investment to accelerate changes to address known issues. This was a way of increasing the available resources, including bringing in 3rd party software providers, to as quickly as possible, deliver stable reliable IT systems within housing. This approach was focused on resolving currently identified issues and delivering any improvements that were possible with existing systems quickly, in line with the Housing Improvement Board delivery timetable. However, without the capital investment, this approach had significant costs and still failed to deliver transformation to the housing IT systems and provide consistent digital ways of working and communication for tenants and was therefore not taken forward.
	DETAIL (Including consultation carried out)
5.	**Current provision** Whilst undertaking the business process review to support the housing improvement in rents, voids and repairs, several issues and problems with IT systems and the service's digital provision have been identified. Primarily these are: 1. the inability to communicate with tenants about housing repairs appointments in modern ways, such as by email or text message 2. the significant and regular downtime of IT systems in housing 3. inconsistent data, reporting and insight 4. frustration and inefficiencies due to end of life equipment 5. different ways of working across housing operations staff, 50% of the team working digitally and 50% from paper 6. the inability to deliver new modules, functionality or quickly make changes in line with business process reviews which are designed to deliver improved void turnaround times, increased rent collection and reduced costs of repairs.
6.	Having completed some extensive IT and Digital investigations the causes of these issues have been identified as resulting from the following central issues: 1. The legacy and bespoke implementation of IT systems in housing have meant it is complex, expensive and difficult to upgrade and update. Therefore, some of the housing IT systems (Total and DRS) have not been routinely updated and are therefore not providing the latest functionality or integrations with each other or other supporting systems (such as Keystone, the Council's asset management database). Despite the desire to implement new modules and functionality in Northgate this has not

		progressed due to the unknown impact of implementing them onto a bespoke system.
		2. The impact of out of date IT systems is that they are not stable, they regularly fail to work or to work properly, this causes frustration for the teams trying to work digitally and wastes time and resources both at the front-line and within IT & Digital who need to fix the faults.
		3. Having many different systems means that the flow of data is overly complex and vital pieces of information are not able to be carried forward from one system to another. This results in needing to compile management reporting and information from several sources which can lead to inconsistent customer and service insight and doubt about the reliability of data.
		4. The IT equipment in daily use by housing operatives is outdated, fails and needs to be refreshed.
7.		The IT systems that collectively provide the Housing Service are complex, old and fragile. Only the core application (Northgate) has had regular updates, the last one was in phase one of the Digital and IT plan for housing delivered before Christmas 2018. However, these upgrades are costly and time consuming to deliver due to the way Southampton City Council has bespoked the system. The diagram below (appendix 1) shows that the core application is only one amongst more than 12 applications that work together to provide the data needed by tenants, the housing operation staff and third parties to collectively provide the service.
		The existing IT systems' technical configuration and the way the business operates them can result in inconsistent data. This means that staff do not trust the data and may perform additional checks to verify information they are processing or may proceed unaware that they do not have the complete picture. There is also a considerable amount of duplication of effort as information is manually transferred from one system to another or workarounds are undertaken.
		Systems within the Housing IT service (particularly Total and DRS) often fail. A recent report from the IT service desk over the last year listed 77 incidents for the 12 business applications of the housing service. Nearly two thirds of the incidents involved 2 business applications. One of these is DRS Optitime (23/77) that schedules appointments and the other is Total Mobile (25/77) that staff and the trades use for housing appointments. The high degree of data transfer between one system and another means that any system failure is likely to impact the whole business operation of the Housing service.
		Despite the approach to not upgrade the underlying IT applications, to comply with IT security policies, the IT service regularly applies security fixes and patches to the servers and infrastructure so that even though the business applications are very old and rarely get updated the infrastructure is secure. However, this means that the environment is constantly changing and often these changes stop the systems from working. As there is no out of hours or extended hours of system support, this often means that the digitally reliant parts of housing operations cannot work until the IT systems are fixed.

8.	The diagram at appendix 1 demonstrates the complexity of the current IT environment. The lighter coloured data exchanges between the darker shaded systems will not be available if an IT system is unavailable.
9.	Alongside these issues with the underlying IT systems, the mobile devices used by trades staff daily are nearly four years old and are end of life. Devices are regularly failing and unlike the IT systems where changes can be made to improve security or alter functionality, this cannot happen with the current devices.
10.	**The recommended way forward** Rather than simply addressing known issues, the Housing Improvement Board is recommending this capital investment, because this focuses on putting the tenant and trades at the heart of the solution and in line with the digital strategy and business need, recommends consolidation onto two IT platforms, Northgate and a new mobile platform. This will provide a fit for purpose IT architecture and additional functionality that is required to deliver the improvements in voids, rents and repairs sought by the board. Taking this approach reduces the number of IT systems housing use, moves Northgate away from a bespoke solution and therefore reduces the complexity and number of integrations required. It improves the reliability of the systems by purchasing a managed, hosted solution with guaranteed availability in working hours, minimising the current downtime that is experienced and enabling the possibility of extended hours of IT support from the supplier to align with housing operational hours.
11.	Moving to a new mobile platform, means the Council can take advantage of the out of the box functionality which shows tenants where their trades person is on a map, sends automatic text message updates and can be integrated with Northgate and if desired Keystone (the councils asset management software). Alongside the investment to strip back the bespoke code within Northgate and then deploy the new modules, this enables the digital requirements that have been identified to be met.
12.	As well as improvements to tenant communication procuring the new mobile platform will enable the following additional functionality for the council: - Ability for trade staff to see their visits on a map in order of schedule - A peer-to-peer lone worker facility that allows a user to send a request to a colleague/buddy to check on them within a defined time - Ability to book future appointments there and then during a visit - Easy communication between mobile workers - Improved reporting, alerts and management information - One system for contact centre staff to use to book appointments and manage in-day changes
13.	Looking across the council and delivering on the aims of the digital strategy, to consolidate and reduce IT systems, there are possibly other advantages of procuring a new mobile platform as there may be other out of the box functionality that, subject to the appropriate development of a business case, could be purchased and used by other departments who work in a similarly mobile way to housing operations.

14. **Return on Investment**

HRA CAPITAL Digital Improvements

HRA CAPITAL	19/20	20/21	21/22	22/23	23/24		TOTAL - 5 YEARS
	£	£	£	£	£		
Expenditure							
Procurement and Installation Costs of new mobile platform	470,000	35,000					505,000
New Devices and mobile data SIM contracts	214,000	10,000	10,000	10,000	10,000	(then in perpetuity)	254,000
Ongoing Devices Refresh (20% devices per year)		40,000	40,000	40,000	40,000	(then in perpetuity)	160,000
IT change project team (£312,500 pa to be found from existing resources)	0	0	0	0	0		0
New test servers / Infrastructure	30,000						30,000
Resources to support implementation on new test servers	86,000	15,000					101,000
Total Expenditure:	**800,000**	**100,000**	**50,000**	**50,000**	**50,000**		**1,050,000**
Funding/Savings (later years are revenue savings) to cover cost of capital scheme							
Capital programme reductions elsewhere	(800,000)						(800,000)
Service efficiencies & Income through Southampton First		(100,000)	(250,000)	(300,000)	(300,000)	(then in perpetuity)	(950,000)
Reduction in void rent losses through prioritising inspections and repairs		(43,000)	(86,000)	(129,000)	(172,000)	(then in perpetuity)	(430,000)
Reduction in fuel due to reduction in carded visits from 14% to 5%		(2,000)	(4,000)	(7,000)	(9,000)	(then in perpetuity)	(22,000)
IT Savings							0
IT System Rationalisation		(40,000)	(80,000)	(80,000)	(80,000)	(then in perpetuity)	(280,000)
Total Funding/Savings:	**(800,000)**	**(185,000)**	**(420,000)**	**(516,000)**	**(561,000)**		**(2,482,000)**
HRA REVENUE	**19/20**	**20/21**	**21/22**	**22/23**	**23/24**		**TOTAL - 5 YEARS**
Ongoing platform and user licenses			178,200	178,200	178,200	(then in perpetuity)	534,600
TOTAL - NET COST/SAVINGS :	**0**	**(85,000)**	**(191,800)**	**(287,800)**	**(332,800)**		**(897,400)**

15.	**Route for Procurements** There are three aspects to this investment that need to be properly and appropriately procured with support from the council's procurement team. The agreed approach to each element is outlined below: 1. **New Mobile Platform.** It is agreed that the new mobile platform will be procured through the government digital marketplace (G-Cloud framework) to ensure value for money for the Council. 2. **Northgate test environment**. Support from Northgate can be purchased in line with our existing agreements with them. Hardware to support the new environment can be bought through the existing Capita IT contract. 3. **New mobile devices**. The new mobile devices can be purchased through the existing arrangements with Capita IT.
16.	**Implementation** Having worked through various scenarios, it is anticipated that the new mobile platform will be procured and implemented by the end of 2019. Whilst the procurement and implementation of the platform takes place it is expected that Digital and IT will parallel run the setup of the new Northgate test environment and start the piloting and procurement of new devices with existing systems, working very closely with Housing Operations trades, operational support and managers. As existing resources permit, the new software will be designed, planned and deployed in parallel with the existing Total Mobile system. The migration of users from the old to new systems is expected to take about 3 months. Once the new mobile platform is implemented the team will decommission the systems that have been replaced. During implementation of the new platform, opportunities will be explored to replace as many of the existing supporting systems that add to the complexity and constrain housing - such as the ladders database (see case study below). **CASE STUDY – Ladders management** **Additional Opportunities for improvement with this investment** Ladders are a necessary tool required by housing operatives for certain jobs. Currently the lifecycle of ladders is managed using a dedicated web application and a collection of user created and updated spreadsheets. Legally every 6 months each ladder must be inspected for safety compliance and accurate records kept. This IT and Digital plan for housing will look to replace this spreadsheet and align the asset management of ladders with corporate asset management procedures. In the future ladder inspections will not be driven by office-based staff creating lists of ladders and inspection dates, instead it is expected that the data in the asset management system about each ladder will trigger an inspection event that will be scheduled to be undertaken by housing operations staff trained as a ladder inspector alongside all their other work in one system. If priorities change the job can be dynamically rescheduled to the next best available person. The dynamic

	scheduler is constantly using a set of rules to reprioritise jobs to staff, being aware of the required job, the detailed set of tasks, skills and experience of the staff, the tools and materials in the van, the location of the job, the location of all staff, the time agreed with the tenant and will, as things change, notify tenants and staff of any required alterations.

RESOURCE IMPLICATIONS

Capital/Revenue

17	Please see paragraph 14 above. This is report is requesting a total of £800,000 of HRA capital funding to be paid back within 5 years through revenue savings.

Property/Other

18	None

LEGAL IMPLICATIONS

Statutory power to undertake proposals in the report:

19	S.1 Localism Act 2011 (general power of competence) authorises the proposals set out in this report together with s.111 Local Government Act 1972 (power to do anything calculated to facilitate the delivery of our [housing] functions).

Other Legal Implications:

20	Software and systems procurement will be required to be undertaken in accordance with the Council's Contract Procedure Rules and all relevant UK procurement legislation relating to public procurement. The software systems currently store significant amounts of personal data, including sensitive personal date, relating to both staff and customers and a full Data Protection Impact Assessment and management plan will be required for the review, transfer and retention of personal data from one system to any newly procured platform to secure compliance with the Data Protection Act 2018 and the GDPR.

RISK MANAGEMENT IMPLICATIONS

21	This report mitigates the risk on the corporate risk register associated with IT disaster recovery by moving another key corporate application to the cloud

POLICY FRAMEWORK IMPLICATIONS

22	This report and its recommendations support the implementation of the council's Digital and Customer strategy.

KEY DECISION?	Yes

WARDS/COMMUNITIES AFFECTED:	All

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SUPPORTING DOCUMENTATION

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Appendices

1.	Current IT System

Documents in Members' Rooms

1.	Equality Impact Assessment
2.	Data Protection Impact Assessment

Equality Impact Assessment	
Do the implications/subject of the report require an Equality and Safety Impact Assessment (ESIA) to be carried out.	**Yes**
Data Protection Impact Assessment	
Do the implications/subject of the report require a Data Protection Impact Assessment (DPIA) to be carried out.	**Yes**
Other Background Documents **Other Background documents available for inspection at:**	

Title of Background Paper(s)		**Relevant Paragraph of the Access to Information Procedure Rules / Schedule 12A allowing document to be Exempt/Confidential (if applicable)**
1.	None	