Audit Committee 17 January 2018

Risk assessment for the withdrawal of support from core IT applications

Executive summary and recommendations

Introduction

The Chair of the Audit committee has requested a paper to assess the risk that a software vendor withdraws support for a core IT application used by the HCPC.

The HCPC relies upon IT business applications to support the effective and efficient delivery of business services.

The HCPC predominantly utilises commercial off the shelf software for the core applications to leverage the benefits of the vendors' continual commercial investment. If a software vendor withdraws support for an application and discontinues the product, there would likely be a significant financial and resource impact as a replacement application is procured and implemented.

This paper identifies the core business applications along with each significant technology component and assesses the risk that support could be withdrawn.

Out of nine core applications there are two at a high risk and one at a medium risk of withdrawal of support by the vendor; one risk has been realised with a notification to withdraw support for Adxstudio.

As part of the standard project prioritisation process two projects have been started within the 2017-18 fiscal year and a further project has been prioritised to start within 2018-19 to address the identified risks.

It is common practice for software vendors to periodically retire legacy technology, explicitly through a withdrawal of support or implicitly through enforced major product upgrades. However, it is unusual for a vendor to withdraw support without sufficient time to manage the change to a new application effectively.

Decision

The Committee is asked to note the document. No decision is required.

Background information

HCPC operates a cycle of continual improvement and invests resources into the core applications predominantly through the annual major project process, where significant changes are managed through structured project management.

A typical major project scope for a core application would include both functional changes to improve business efficiency or effectiveness as well as upgrades to the underlying technology platforms including the core application itself.

The core applications are predominantly based on commercial-off-the-shelf (COTS) software and with all information technology they require periodic upgrades to maintain contractual support. However, application vendors can discontinue a product and withdraw support entirely. This typically occurs when vendors are consolidating customers to an alternative product or when they are withdrawing from the market.

Resource implications

There are no resource implications

Financial implications

There are no financial implications

Appendices

Appendix A – Risk assessment for withdrawal of support from core IT applications

Date of paper

21 December 2017

1. Scope

The scope of the risk assessment includes the core applications which support the core processes of the HCPC, as well as any significant products that make up the system as a whole. However, it excludes the underlying infrastructure platforms including the operating system, database and hardware.

The underlying infrastructure platforms are upgraded and maintained through a continuous maintenance cycle. The platforms require upgrading to maintain support according to a published roadmap and there is a low risk that support will be withdrawn and the products discontinued.

The HCPC website has also been excluded because has not been built using a commercial application but is a traditional bespoke web site. However, a major project will deliver a replacement web site in 2018 which will use a commercial content management system, at which point the application would be included in the risk assessment.

The core applications and the primary user department are:

Department	Primary system	Description	Core Technology components	Vendor
All	Exchange online	Email and calendar	Office 365	Microsoft
All	Office applications	Word, Excel, PowerPoint etc.	Office 365	Microsoft
Education	Dynamics CRM	Case management	Dynamics CRM	Microsoft
			SharePoint	Microsoft
Finance	SAGE	Accounting	SAGE 200	SAGE
Fitness to Practice	Service Chain	Case management	Service Chain	Equiniti Charter
			SharePoint	Microsoft
Human Resources	CoreHR	Personnel records and processes. Recruitment	Software as a service	CoreHR
Partners	CoreHR	Partner records and processes. Recruitment	Software as a service	CoreHR
Registration	NetRegulate	Registrant records and processes. Applications process. Online renewals. Online register.	NetRegulate	EnergySys
Registration	Continuing Professional Development (CPD)	Online CPD process administration.	Dynamics 365	Microsoft
		Online CPD process administration.	SharePoint online	Microsoft
		Online CPD process administration.	Adxstudio Portals v7	Microsoft
		Online CPD process administration.	Azure AD B2C	Microsoft

Figure 1 – table of core applications

2. Application descriptions

Exchange online
A software as a service cloud delivered system, based on the Microsoft O365 product suite of cloud applications with minor configuration. The primary users are all employees.

Office Applications
A combination of on premise deployed applications and a software as a service cloud service, based on the Microsoft O365 product suite of cloud applications with minor configuration. The primary users are all employees.

Education case management system
An on premise system that is built on Microsoft Dynamics CRM and SharePoint, for case management and document management functionality respectively. The system is highly configured with some customisations including interfaces to the web site and the Registration system. The primary users are the Education team.

Finance accounting system
An on premise standard accounting package with some configuration. The primary users are the finance team.

Fitness to practice system
An on premise system that is built using the Equiniti Charter Service chain complaints system and SharePoint for case management and document management functionality respectively. The system is highly configured with some customisations including interfaces to the Partners system and the Registration system. The primary users are the fitness to practice team.

Human resources system
A software as a service cloud delivered system, based on the CoreHR suite of HR cloud applications with some configuration and customisation. The primary users are the HR team and all employees.

Partners system
A software as a service cloud delivered system based on the CoreHR suite of HR cloud applications with some configuration and customisation. The primary users are the Partners team and the Partners. The system is due to go live in early 2018.

Registration system
An on premise system that is built on the EnergySys NetRegulate product. This is a bespoke build to support the HCPC Registration processes. HCPC are the only customer for the product and it continues to be developed to our specification. The primary users are the registration team and registrants in renewal, although it also services the public register.

Continuing professional development (CPD) system
This is predominantly a cloud delivered system built using a number of core Microsoft services and software. It is highly configured with some customisations including an interface to the Registration system. The primary users are the registration team, registration assessors and registrants under CPD. The system is due to go live in early 2018.

3. Risk assessment

Each Application is assessed against the likelihood that the vendor will withdraw support and the associated business impact according to the risk matrix in appendix B.

For the purposes of this report, ‘support’ refers to the combination of support services (fault-fix) as well as maintenance (on-going development of an application).

Department	Application	Likelihood	Impact	Risk
All	Exchange online	1	3	3
All	Office applications	1	2	2
Education	Dynamics CRM	1	4	4
	SharePoint	1	2	2
Finance	Accounting	1	3	4
Fitness to Practice	Service Chain	5	4	20
	SharePoint	1	2	2
Human Resources	CoreHR	1	4	4
Partners	CoreHR	1	4	4
Registration	NetRegulate	2	5	10
	Dynamics 365	1	4	4
Registration	SharePoint online	1	2	2
	Adxstudio Portals v7	5	4	20
	Azure AD B2C	2	2	4

Figure 2 – application support risk assessment

4. Risk commentary

The risk associated with each application can be moderated by additional factors such as the strategic importance of the application for a vendor; whether the licences offer perpetual rights to use the application; contractual obligations to maintain support during a termination period; and long term support policy commitments.

4.1 Exchange online

Exchange online is licensed under a subscription agreement. It is the software as a service version of the on-premise application and follows the Microsoft cloud business strategy.

It is a mature core Microsoft product and requires annual version upgrades to retain support. It is highly unlikely to have support withdrawn and be discontinued.

4.2 Office applications

Microsoft Office applications (Word, Excel, PowerPoint, Outlook, and Skype for Business etc.) are licensed under a subscription agreement with rights to use both as a cloud application and on premise.

It is a mature core Microsoft product suite and requires periodic version upgrades to retain support. It is highly unlikely to have support withdrawn and be discontinued.

4.3 Education
Dynamics CRM and SharePoint are both licenced under a subscription agreement with rights to downgrade to any previous version of the product.

They are mature core Microsoft products. Microsoft applies a ten year support policy against these products. It is highly unlikely that support would be withdrawn and the products discontinued.

4.4 Finance
Sage 200 is a mature core product from SAGE. It is licensed with perpetual use rights to HCPC. The product requires periodic version upgrades to maintain support. It is unlikely to have support withdrawn and be discontinued.

4.5 Fitness to Practice
Service Chain is the legacy application from Equiniti Charter and is licensed under a subscription agreement. The application code is held under escrow and under specific circumstances would be released to the HCPC.

Equinity Charter have developed a new product that supersedes the Service Chain application, although they continue to market Service Chain.

Equinity Charter have indicated that they want to transition existing customers from the Service Chain product to their replacement application. The service contract with Equiniti Charter allows HCPC a three year period to move to an alternative product after either party issue a termination notice. Equinity Charter are required to support the Service Chain product during the termination period.

A project for the review and replacement of the Service Chain application has been prioritised for the 2018-19 fiscal year.

4.6 Human Resources
CoreHR is licensed under a subscription agreement and is delivered as software as a service within the CoreHR cloud. This is the central application and service for the company. The product requires periodic version upgrades to maintain support. It is highly unlikely to have support withdrawn and be discontinued.

4.7 Partners
CoreHR is licensed under a subscription agreement and is delivered as software as a service within the CoreHR cloud. This is the central application and service for the company. The product requires periodic version upgrades to maintain support. It is highly unlikely to have support withdrawn and be discontinued.

4.8 Registration

4.8.1 NetRegulate

The NetRegulate system is licensed with perpetual use rights. It is a mature product with a history of support and development. The application code is held under escrow and under specific circumstances would be released to the HCPC. The application is built on a Java Enterprise platform that requires periodic upgrade and migration.

The risk assessment has been adjusted to reflect a perceived increased risk that although the application is a mature product with a history of support, the vendor primarily focuses on a product set targeted to a separate industry sector.

A project for the review and replacement of NetRegulate has already begun with the first phase delivering the CPD system.

4.8.2 CPD

a) Dynamics 365 and SharePoint online are software as a service versions of the on-premise applications and follow the Microsoft cloud business strategy.

They are mature core Microsoft products and require annual version upgrades to retain support. It is highly unlikely that support would be withdrawn and the products discontinued.

b) Adxstudio Portals v7 was an acquisition by Microsoft and was the leading out-of-the-box portal product for Microsoft Dynamics CRM at the time. It was anticipated that Microsoft would redevelop the product to align it with Microsoft's standard architecture.

The alignment of the product deprecated key functionality and does not provide a seamless migration path between product versions. Since Adxstudio Portals was an acquisition it does not fall under the standard ten year support commitment for Microsoft Systems.

A project for the migration of the functionality to a supported platform has begun in the 2017-18 fiscal year.

c) Azure AD B2C is a new Microsoft cloud service for identity authentication. It follows the Microsoft business cloud strategy and is delivered as software as a service. It is highly unlikely that support would be withdrawn and the product discontinued.

5. Review cycle

The primary mechanism used to manage change to the HCPC core applications is through the annual major project prioritisation process which forms part of the annual work plan and budget setting process.

A business case is created for any core application where the application itself or the technology platforms that it depends upon require upgrade, migration or replacement.

The business cases for major projects are reviewed and authorised by EMT before inclusion into the corporate business plans and budget.

Throughout each year HCPC receives intelligence about product developments from each supplier as part of service reviews and development projects. HCPC also receives proactive technology lifecycle updates directly from Microsoft.

Microsoft has a policy (Microsoft Business, Developer and Desktop Operating Systems Policy) that provides support for the majority of Microsoft products for a period of ten

years. At Microsoft's discretion they can also offer extended support for an additional charge.

Appendix B - HCPC business risk assessment criteria

The HCPC Application risk assessment criteria are consistent with the HCPC corporate risk matrix. The criteria for impact reflects those of the corporate risk matrix. The criteria for likelihood are subjective but aim to specify conditions under which a product is increasingly likely to have support withdrawn.

IMPACT	Negligible1	Rare 2	Unlikely 3	Possible 4	Probable 5
	A mature product with a history of support	A new product with no history of support or a new acquisition with no competing product	A mature product where the vendor has several mature competing products	A recent acquisition where the vendor has competing products	The vendor develops a new competing product.
Catastrophic 5 The replacement costs are greater than £1 million. Likely to result in a failure to protect the public. The service will take more than 24 months to replace Will require dedicated business resource	5	10	15	20	25
Significant 4 The replacement costs are £250,000 -£1 million The service will take between 12 and 24 months to replace. Will likel require dedicated business resource Requires significant changes to work processes and procedures to work around the issues.	4	8	12	16	20
Moderate 3 The replacement costs are £50,000 - £250,000 The service can be replaced within 12 months with possible compromises to work processes and procedures and likely requires some additional resource	3	6	9	12	15
Minor 2 The replacement costs are below £20,000 - £50,000 The service can be replaced within 12 months with existing resources	2	4	6	8	10
Insignificant 1 The replacement costs are over £10,000 The service continues to operate in perpetuity and is not internet facing	1	2	3	4	5

LIKELIHOOD

Figure 1 – HCPC Application risk assessment criteria

HCPC corporate Risk Matrix

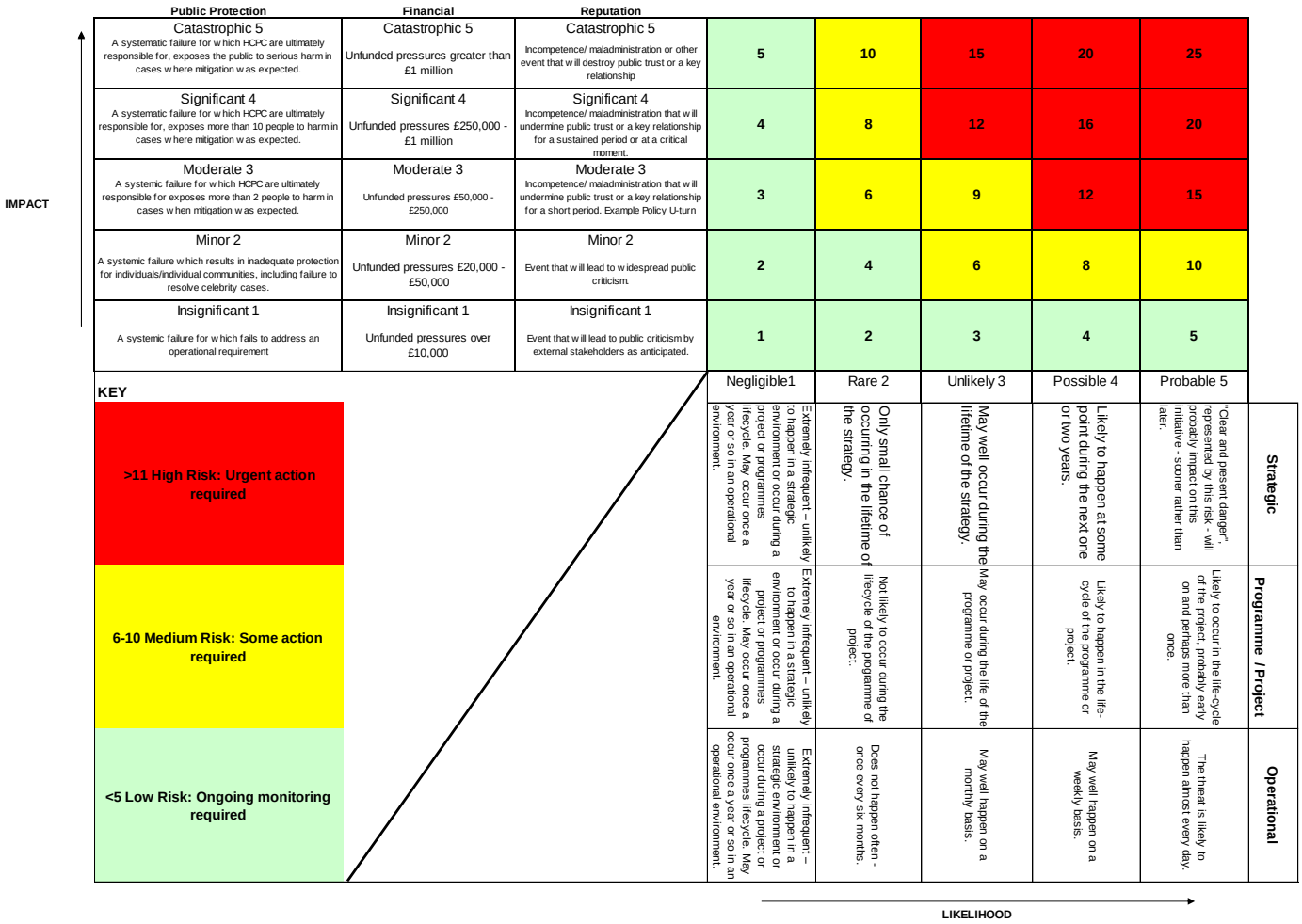

Figure 2 - HCPC corporate risk matrix