



Digital Services Sub (Finance) Committee

Date: FRIDAY, 1 NOVEMBER 2019
Time: 1.45 pm
Venue: COMMITTEE ROOMS - WEST WING, GUILDHALL

Members: Randall Anderson (Chairman)
Deputy Jamie Ingham Clark (Deputy Chairman)
Deputy Keith Bottomley
Tim Levene
Jeremy Mayhew
Rehana Ameer
Deputy Hugh Morris
Deputy Roger Chadwick
Benjamin Murphy
John Chapman
Sylvia Moys
Barbara Newman
James Tumbridge

Enquiries: Rofikul Islam
rofikul.islam@cityoflondon.gov.uk

Lunch will be served in the Guildhall Club at 1pm.
N.B. Part of this meeting could be the subject of audio or video recording.

John Barradell
Town Clerk and Chief Executive

AGENDA

Part 1 - Public Agenda

1. **APOLOGIES**
2. **MEMBERS' DECLARATIONS UNDER THE CODE OF CONDUCT IN RESPECT OF ITEMS ON THE AGENDA**
3. **MINUTES OF THE PREVIOUS MEETING**
To agree the public minutes of the meeting held on 8 October 2019.
For Decision
(Pages 1 - 6)
4. **FORWARD PLAN**
Report of the Chamberlain.
For Information
(Pages 7 - 8)
5. **OUTSTANDING ACTIONS FROM PUBLIC MINUTES OF PREVIOUS MEETINGS**
Joint report of the Town Clerk and the Chamberlain.
For Information
(Pages 9 - 10)
6. **COMMUNITY AND CHILDREN'S SERVICES - TECHNOLOGY OVERVIEW**
The Director of Community and Children's Services to be heard.
For Information
(Pages 11 - 16)
7. **CITY OF LONDON CORPORATION INFORMATION MANAGEMENT METRICS**
Report of the Comptroller and City Solicitor.
For Decision
(Pages 17 - 32)
8. **CITY OF LONDON CORPORATION INFORMATION MANAGEMENT PROTECTIVE MARKING**
Joint report of the Comptroller and City Solicitor and the Chamberlain.
For Information
(Pages 33 - 40)
9. **IT SERVICE DELIVERY UPDATE**
The Deputy Director IT and Agilisys Service Director to be heard.
For Information
10. **IT RISKS**
The Director of IT to be heard.
For Information

11. **WINDOWS 7 MIGRATION AND EXTENDED SUPPORT**
Report of the Chamberlain.
For Information
(Pages 41 - 44)
12. **THE CASE FOR A SECURITY OPERATING MODEL**
Report of the Chamberlain.
In conjunction with non-public appendix at item 19.
For Information
(Pages 45 - 50)
13. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUB COMMITTEE**
14. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT**
15. **EXCLUSION OF THE PUBLIC**
MOTION - That under Section 100(A) of the Local Government Act 1972, the public be excluded from the meeting for the following items on the grounds that they involve the likely disclosure of exempt information as defined in Part I of Schedule 12A of the Local Government Act.
For Decision
- Part 2 - Non-Public Agenda**
16. **NON-PUBLIC MINUTES OF THE PREVIOUS MEETING**
To agree the non-public minutes of the meeting held on 8 October 2019.
For Decision
(Pages 51 - 54)
17. **OUTSTANDING ACTIONS FROM NON-PUBLIC MINUTES OF PREVIOUS MEETINGS**
Joint report of the Town Clerk and Chamberlain.
For Information
(Pages 55 - 56)
18. **NON-PUBLIC APPENDIX: THE CASE FOR A SECURITY OPERATING MODEL - APPENDIX 1**
Report of the Chamberlain.
In conjunction with item 13.
For Decision
(Pages 57 - 64)
19. **FORMALISATION OF GOVERNANCE STRUCTURE TO SUPPORT SENIOR INFORMATION RISK OWNER (SIRO) AND INFORMATION MANAGEMENT RISK APPETITE**
Report of the Comptroller and the City Solicitor.
For Information
(Pages 65 - 102)

20. **POLICE DEEP DIVE IMS/DRS**
The Police Programme Lead to be heard.

For Information

21. **DISASTER RECOVERY TESTS UPDATE**
Report of the Chamberlain.

For Information
(Pages 103 - 110)

22. **NON-PUBLIC QUESTIONS ON MATTERS RELATING TO THE WORK OF THE
SUB COMMITTEE**

23. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT AND
WHICH THE SUB COMMITTEE AGREE SHOULD BE CONSIDERED WHILST THE
PUBLIC ARE EXCLUDED**

part 3 - Confidential Agenda

24. **IT MANAGED SERVICES - PROCUREMENT STAGE 2 AWARD REPORT**
Report of the Chamberlain.

For Decision

DIGITAL SERVICES SUB (FINANCE) COMMITTEE

Tuesday, 8 October 2019

Minutes of the meeting of the Digital Services Sub (Finance) Committee held at the Guildhall EC2 at 11.00 am

Present

Members:

Randall Anderson (Chairman)	Deputy Roger Chadwick
Deputy Jamie Ingham Clark (Deputy Chairman)	John Chapman
Jeremy Mayhew	Sylvia Moys
Rehana Ameer	Barbara Newman

Officers:

Rofikul Islam	- Town Clerk's Department
Sean Green	- Chamberlain's Department
Matt Gosden	- Chamberlain's Department
Gary Brailsford-Hart	- City of London Police
Kevin Mulcahy	- Chamberlain's Department
Mel Richardson	- Town Clerk's Department
Ryan Dolan	- Town Clerk's Department
Sarah Williams	- City of London Police
Matt Gosden	- Chamberlain's Department
Sam Collins	- Chamberlain's Department
Dorian Price	- City Surveyors
Samantha Kay	- Chamberlain's Department

In attendance:

Eugene O'Driscoll	- Agilisys
Nigel Muirhead	- Agilisys
Graeme Everitt	- Agilisys

1. MEMBERS' DECLARATIONS UNDER THE CODE OF CONDUCT IN RESPECT OF ITEMS ON THE AGENDA

There were no declarations.

2. APOLOGIES

Apologies were received from Deputy Keith Bottomley, Deputy Joyce Nash, Deputy Hugh Morris and James Tumbridge.

3. MINUTES OF THE PREVIOUS MEETING

RESOLVED: That the public minutes of the meeting held on 5 July 2019 be approved as an accurate record.

4. FORWARD PLAN

The Committee received a joint report of the Town Clerk and the Chamberlain which provided updates of outstanding actions from previous meetings. The report also provided information on the Committee's proposed work plan for forthcoming meetings

RESOLVED – That the Committee notes the report.

5. **DESIGN, BUILD, SUPPORT AND HOSTING FOR NEW WEBSITE**

The Committee received the report of the Town Clerk (Director of Communications) on the design, build, support and hosting for new website.

The report was provided to keep the Committee updated on the progress of the website project, as agreed earlier on in the year. The Digital Publishing and Content Strategy Lead informed the Committee that the Department has so far completed the design phases and is proceeding through the build phases with the intention to launch the testing phase soon.

The search facility is currently being built. Members will be invited to test out the search engine before going live.

At present, the Department is working towards early 2020 to have all the contents ready and to go live in April 2020. This provides significant tolerance for unexpected issues to be resolved before the site must go live. The customer journey will be easier ensuring that it will not take no more than 3 or 4 clicks for the user to get to their desired page.

A Member asked how easy it will be for a user to find the "Contact Us" button. Officers reassured the Member that the "Contact Us" link will continuously appear on the footer of the page, throughout the users experience on the website.

There was a discussion around making sure that the website provides users with positive and easier experiences.

A Member asked if past complaints about the website had to been factored in the new design phase. The Committee were informed that all the past issues and complaints regarding the websites were addressed.

A Member asked if there was a budget for post-go-live analysis and improvement. The Committee were informed that there was a small amount for such work. Members were informed that the project has a green status and currently is on time, on budget and within its scope.

RESOLVED – That the Members note the report and the oral update.

6. **GENERAL DATA PROTECTION REGULATION (GDPR/DATA PROTECTION ACT 2018 - DPA)**

The Committee received the report of the Comptroller & City Solicitor on the General Data Protection Regulation (GDPR/Data Protection Act 2018) (DPA)

The Comptroller & City Solicitor informed the Committee, that between 1 January 2019 to 22 August 2019 there had been 45 data breaches which were notified to the

Data Protection Officer. Amongst the 45, 2 were deemed to be notifiable to the Information Commissioner's Office. The Information Commissioner's Office has responded to one of the data breaches suggesting that no further action needed to be taken, but made recommendations which were implemented by the City, whilst the remaining identified breach is currently awaiting a response from the Information Commissioner's Office.

Additionally, two Departments are yet to complete their retention schedules. The Comptroller & City Solicitor Department is actively encouraging the departments to do more to protect their data.

In terms of the data breach incident related to the secure bag containing a variety of documents in relation to a small number of data subjects being stolen, a Member asked if the bag was retrieved. In response to this question, the Comptroller & City Solicitor agreed to look further into the matter and report back to the Committee in writing. A Member also asked if the training for employees included the fact that data privacy laws extend to information on paper. The Comptroller & City Solicitor confirmed that it was included.

RESOLVED: That Members are asked to note the report.

7. CUSTOMER RELATIONSHIP MANAGEMENT - UPDATE

The Committee received the report of the Chamberlain on the customer Relationship Management – update.

The report provided an update to the Committee on the Customer Relationship Management Project, which commenced in December 2017. Members were further informed that there are now capabilities for online payments, taking bookings and soon departments will be able to sell their products and services online.

RESOLVED: That Members are asked to note the report.

8. IT DIVISION - IT SERVICE DELIVERY SUMMARY

The Committee received the report of the Chamberlain on the IT Division – IT Service Delivery Summary. The Committee were informed that Agilisys are working with IBM to ensure greater resilience and ensuring that the networks are not impacted in the future.

The Chairman enquired about the telephone line failures at the call centre. Members were informed that the service affected was triggered by planned power maintenance work by datacentre. Moving forward the City is now in a better position, to be well prepared with adequate resilience in place for such eventualities.

A Member asked how extensive this P1 incident was and if all the due processes were followed. Officers confirmed to the Committee that the department has a Change Approval Board in place and in the event the incident is critical then the incident undergoes a major incident review process.

Members were further informed that the DR test will now be carried out on a rolling basis Furthermore, Members were informed that whenever such tests are done, the

department explores the timing for tests and changes to ensure that there are lowest possible service disruptions across the City of London.

It was agreed that a paper on the Change Process will be presented to the Committee at a future meeting.

RESOLVED: That Members are asked to note the report.

9. **IT DIVISION RISK UPDATE**

The Committee received the report of the Chamberlain on the IT Division Risk Update. Members were informed that there are 3 corporate risks at present.

RESOLVED: That Members are asked to note the report

10. **IMPLEMENTING THE APPLICATION MANAGEMENT STRATEGY - THE APPLICATION ROAD MAP**

The Committee received the report of the Chamberlain on the Implementing the Application Management Strategy – the Application Roadmap. The Committee were informed that the Chamberlain have developed a high-level Application Roadmap.

Members were further informed that the City of London along with other stakeholders manages around 300 Applications. The Chamberlain's department is ensuring that all the Applications are supported, updated and if not in use ensuring a smooth retirement of the Applications. The full road map will be presented at a future meeting.

A Member asked if there are any ways of monitoring the usage of the Applications. The Committee was told as part of application management process, all the Applications usages are monitored thus as a result, if an Applications are not in use for 90 days the Application would become ineffective in the installed devices.

There was also a mention that a discussion around the future of Oracle version 12.1 needs to take place. Officers agreed that this will be addressed in the future too.

RESOLVED: That Members are asked to note the report.

11. **SMART WORKING AND ACCOMMODATION - PRESENTATION**

The Committee received a verbal update from the City Surveyor on the smart working and accommodation. Members were advised that the project was initiated in 2016, however, since 2018 the City Surveyor's department has been taking a lead with the project. The immediate focus has been on accomadating the move of people currently housed at the Walbroke wharf site into the Guildhall complex..

The City Surveyor's department is now working towards delivering smart working with greater efficiency, modern and agile use of office space. Works has started in the Guildhall Complex by the implementation of clean desks policy and reduced linear storage.

The Chairman commented that there needs to be an element of flexibility around agile working with providing greater IT support. Members were assured that the laptops have allowed the City to provide staff with agile working. There are fissures in

service which needs to be addressed in order to add value to the services that are in existence. As we go through the transition process, we will require time to smooth up the processes with investments, priorities and enablement.

One of the key challenges is that this is a lengthy project with a timeline of 3 to 5 years.

RESOLVED – That the Committee notes the verbal update.

12. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUB COMMITTEE**
There were no questions.

13. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT**
There were no items of urgent business.

14. **EXCLUSION OF THE PUBLIC**
RESOLVED - That under Section 100(A) of the Local Government Act 1972, the public be excluded from the meeting for the following items on the grounds that they involve the likely disclosure of exempt information as defined in Part I of the Schedule 12A of the Local Government Act.

The meeting closed at 1.10 pm

Chairman

Contact Officer: Rofikul Islam
Rofikul.islam@cityoflondon.gov.uk

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Forward Plan – November 2019

Report Title	Report Month	Category	Who
IT Change Management Process	January 2020	Tactical	MG
IT Security Landscape Overview	January 2020	Strategic	GBH
Parking Solutions for the CoLC	January 2020	Strategic	MG
Police Programme Deep Dive (Emergency Service Network) ESN	January 2020	Strategic	SG
Proposed Capital Programme 2020/21	January 2020	Strategic	KM
Police Programme Deep Dive IMS DRS	January 2020	Strategic	AB
Disaster Recovery/Business Continuity Testing Update Report	January 2020	Operational	MG
IT Impacts from the Fundamental Review	January 2020	Strategic	SG
IT Operating Model Following 2020 Contract	January 2020	Strategic	SG
Digital Services Strategy Update	January 2020	Strategic	SG
2020 Sourcing Contract Award Contract and Progress Report	January 2020	Strategic	SG
IT Service Benchmarking Review	January 2020	Strategic	SG
Presentation from DBE	January 2020	Strategic	TBA
Application Roadmap Deep Dive	January 2020	Strategic	MG
Smart Programme Update Following Fundamental Review	March 2020	Strategic	PW
IaaS to Cloud Migration	March 2020	Strategic	SG
Web Project Update	March 2020	Strategic	BR
GDPR Update	March 2020	Operational	MC
Presentation from Innovation and Growth	March 2020	Strategic	TBA
Centralising Solutions and Common Platforms for the City of London Corporation – Booking System, Single Debt Collection System, Single Car Park System, Single Body Cam solution and Single Payment System	March 2020	Strategic	MG and AF
2020 Sourcing Contract Award Contract and Progress Report	March 2020	Strategic	SG
Presentation from Town Clerks	May 2020	Strategic	TBA
IT Business Plan	May 2020	Strategic	SG
2020 Sourcing Contract Award Contract and Progress Report	May 2020	Strategic	SG
DR Test Report	July 2020	Strategic	TBA
2020 Sourcing Contract Award Contract and Progress Report	July 2020	Strategic	SG

Presentation from Remembrancer and City of London Police	July 2020	Strategic	TBA
IT Security Landscape Overview	July 2020	Strategic	GBH
Presentation from City Surveyors	September 2020	Strategic	TBA
2020 Sourcing Contract Award Contract and Progress Report	September 2020	Strategic	SG
Presentation from Barbican	November 2020	Strategic	TBA
Presentation from Comptroller	January 2021	Strategic	TBA

Contributors

Sean Green – SG

Sam Collins - SC

Matt Gosden – MG

Adam Fielder - AF

Andrew Bishop - AB

Kevin Mulcahy – KM

Sam Kay – SK

Gary Brailsford-Hart – GBH

Steven Bage – SB

Bob Roberts – BR

Jon Averbs – JA

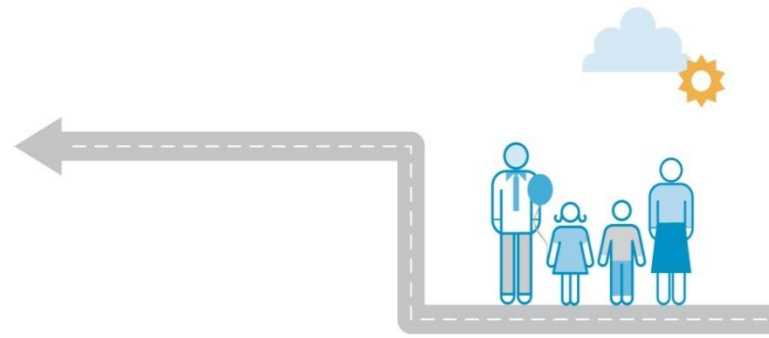
Paul Wilkinson – PW

Andrew Carter - AC

Digital Services Sub (Finance) Committee – Outstanding Actions (Public)

Item	Meeting Date	Action and target for completion	Officer responsible	To be completed/ Next stage	Progress update
8	8 October 2019	IT Service Delivery Summary. It was agreed that a paper on the Change Process will be presented to the Committee at a future meeting.	MG	March 2020	Paper to be presented in March 2020 due the timing required for other planned agenda items – an interim summary of the change process can be included in the Service Delivery update paper in January 2020.
10	8 October 2019	Implementing the Application Management Strategy – the Application Roadmap. A discussion around the future of Oracle version 12.1 needs to take place. Officers agreed that this will be addressed in the future.	MG	March 2020	The discussion on the work to upgrade Oracle is being held in the context of the decoupling of the Property Module and the procurement of a best of breed Property Management system. This is subject to a requirements review and funding allocated for the new system. Members will be updated once the requirements review is completed.

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Community and Children's Services

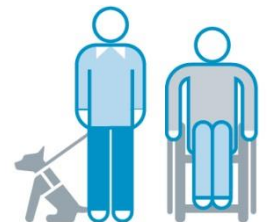
Technology Overview

Andrew Carter
Director of DCCS

Digital Services Sub Committee
1st November 2019

Agile and Efficient Working

- DCCS was an early adopter of mobile working - facilitated by Corporate initiatives such as sharepoint, teams, skype, on line training (Microsoft Stream)
- Continuity of service and reduction in travelling time.





Improved Outcomes for Service Users

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- Self service and on line facilities allows for personalisation of services, flexibility and control
- Improved connectivity - increased use of apps/technology to provide real time support and feedback
- Increased security and safeguarding (e.g. falls alerts, EDT access)
- Modern up to date management systems harnessing new technology and ensuring future proofing within the contract (e.g. Libraries, Housing Management System)





Future Plans

- Bringing support for local business applications into one team to reduce risks and harvest knowledge
- Power BI
- Increased use of CRM and Portals through the City On line shop (with Firmstep)
- Move away from commissioning on a system by system basis (reactive) to a service basis (better longer term planning and use of innovative technology).

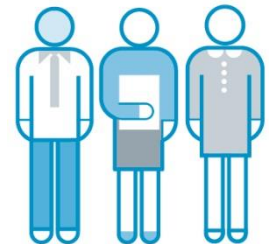
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Challenges

- A Corporate IT/technology sourcing/forward plan would support departmental planning and enable greater collaboration
- Forging new ways of working by listening to users, encouraging channel shift and supporting services users to become more IT literate/less reliant on paper or face to face
- A Corporate Payment strategy is not in place
- Corporately balancing risks and benefits (security locks, liabilities and savings)



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Committee(s)	Dated:
Summit Digital Services Sub Committee	26 th September 2019 1 st November 2019
Subject: City of London Corporation Information Management Metrics	Public
Report of: Michael Cougher - Comptroller	For Decision
Report authors: Sean Green – IT Director	

Summary

The Information Management (IM) Strategy was agreed by Summit in March 2019 and the Digital Services Sub-Committee in July 2019.

When the Strategy was agreed it was recognised that one area that required further development was Information Management Metrics.

This paper presents the IM metrics for decision. These metrics can be reviewed after 6 and 12 months to ensure they are relevant and challenging.

Recommendation(s)

Members are asked to:

- Agree this report and the draft metrics documented in Appendix B.

Main Report

Background

1. In March 2018 Summit agreed the IM Strategy
2. *Information management* (IM) is used here as shorthand for the systematic collection, curation, analysis, sharing, use and disposal of information, where the term 'information' also encompasses data and knowledge
3. The Corporation has developed an IM Strategy based on this shorthand definition, which is underpinned by 5 key strategic principles and a maturity model (See Appendix A)
4. The strategy seeks to transform IM capabilities (tools and skills) and culture (values and behaviours) across the Corporation and its partners so that accurate and timely information is routinely and effectively used as the basis for decisions and actions, thereby leading to better service outcomes.

5. A programme of work is being developed to realise the strategy, supported by IM metrics to measure realisation progress and achievement
6. When the IM Strategy was presented to Summit in March 2019 it was recognised that further work was required on developing appropriate metrics. This report explains the methodology and approach in developing the IM Metrics and provides a set of draft IM metrics for agreement by Summit.

IM Metrics Methodology and Approach

7. Metrics are a model of measurement to deliver meaning – the IM metrics have been devised to measure progress against the IM strategic principles and IM maturity model.
8. The metrics are translated into practical measures of progress and achievement at 12 months, 24 months and 36 months from a measure-specific starting point yet to be determined.
9. The meaning derived from the metrics will allow us to steer the development and implementation of IM across the Corporation and our partners, learning as we go.
10. At the heart of the metrics methodology is the concept of continual improvement.
11. The measures are designed with increasingly ambitious targets as time passes.
12. In reviewing progress, e.g. at each milestone, thought should be given to improving the measures or adjusting the targets considering experience – it might even be appropriate to replace or redefine a measure.

Scope of Metrics

13. The metrics have been developed following industry best practice regarding achieving IM maturity (including recommendations from technology specialists Gartner). There are five main dimensions that are recommended for measuring how successful the City of London Corporation (CoL) is progressing to deliver the agreed IM Strategy. These are detailed below:
 - a. Governance & Security;
 - b. Storage & Retention;
 - c. Data Use;
 - d. Information Analysis & Presentation;
 - e. Knowledge Development.
14. The set of draft IM Metrics are detailed in Appendix B.

The Development of the Draft IM Metrics

15. The Metrics detailed below can be mapped back to our IM Strategic Outcomes (See Appendix C - Relating IM Metrics to IM Outcomes).
16. The context and definition for the IM metrics are detailed below.
17. Governance and Security Metrics are defined as:
 - a. Data/knowledge/information items that are typically held together in collections based on a common area of focus, e.g. all postal addresses in the City; all Corporation social care clients; all transactions through the contact centre; all building regulations enforced by the Corporation; all responses to a particular survey;
 - b. These collections are defined as *assets* when they are in some way tangible and uniquely identifiable – e.g. as a set of unstructured paper documents or as a digital database – have value, and can be managed, protected and, where appropriate, shared;
 - c. A structured way of managing the governance and security of information assets (including data and knowledge assets) is termed an information security management system, for which there is an international standard: ISO 27001;
 - d. Information security in this context encompasses three key elements:
 - i. *Confidentiality* – information should be only accessible by authorised persons and systems
 - ii. *Integrity* – information should remain as captured/stored unless transformed in agreed ways
 - iii. *Availability* – information should be reliably accessible in line with authorised how/where/when.
18. Storage and Retention Metrics are defined as:
 - a. This dimension's measures and targets assume that the enabling technologies are in place as a prerequisite;
 - b. Retention of data, knowledge and information brings into play records management (RM)
 - i. RM can have a considerable overlap with IM
 - ii. The Corporation has developed various elements of an RM system, including a Records Management Policy and Records Retention and Disposal Schedule.
19. Data use metrics are defined as:
 - a. Data consist of numbers, text, images or sounds of different types recorded in different ways, which may represent physical or non-physical items, from people and places to ideas and emotions;
 - b. A data asset is a set of data that typically focuses on a specific subject type, e.g. places or people, leading to a well-defined scope and range of values;
 - c. A data asset is said to be *mastered* when it has a clear owner and clear mechanisms for maintaining and sharing it as an up-to-date and

accurate data source, thus making it more reliable and easier to reuse in different contexts and hence more valuable;

- d. The following are two key data assets for the Corporation:
 - i. *Property*, which usually includes address and owner, and might include valuation, dimensions, age and risk assessment amongst other elements;
 - ii. *Customer*, which usually includes name and contact details, and might include age, contact history, related people and vulnerability assessment amongst other elements;
- e. All or some of any data asset might be used by more than one Corporation department, who currently often collect and manage the data independently of one another.

20. Information analysis and presentation metrics are defined as:

- a. The purpose of information is to inform decisions and actions; hence it is key to evidence-based decision-making;
- b. Dashboards and (self-service) reports are two important ways of presenting information:
 - i. *Dashboards* tend to use graphical representations to convey a 'live' common view of current and trend performance, with the format fixed and the content updated continually
 - ii. *Reports* tend to be snapshots at a point in time, with *self-service* reports allowing a degree of format configuration and content selection by users for their own purposes;
- c. In measuring this dimension, information analysis is treated separately from information presentation;
 - i. *Analysis* – applying knowledge to data to produce information; identifying data/knowledge gaps and attempting to fill them
 - ii. *Presentation* – making information meaningful to relevant audiences; capturing their attention and keeping them up to date.

21. Knowledge development metrics are defined as:

- a. Knowledge – the models and methods that we use to understand, represent, react to and impact the world – can be formally documented;
- b. Often, key but subtle aspects of knowledge are kept in people's heads and passed on informally via chats or real-world demonstrations;
- c. Some internal services – e.g. HR, Finance, IT – are already sharing specialist knowledge via the Corporation's intranet, with staff using it to varying degrees;
- d. Collaboration between experts from different backgrounds can help improve knowledge;
- e. Expert systems seek to put knowledge into easily digestible forms that guide non-experts at the scene in dealing with complex issues, thus avoiding the wait for experts, for example:
 - i. A patrolling civil enforcement officer notices a damaged traffic light causing congestion and turns to the relevant 'expert' app on her smartphone to work out what to do;
 - ii. She follows the app's step-by-step instructions on how to capture key facts about the damage and its impact on traffic,

with each step adapting automatically to reflect facts captured in previous steps.

- iii. The app then uses the captured facts to determine the best resolution and alerts the appropriate service team accordingly, or requests further input from a human expert if there is ambiguity.

Corporate & Strategic Implications

22. This strategy will be a key driver behind Corporate Plan outcome 10 'We inspire enterprise, excellence, creativity and collaboration' and outcome 9 'We are digitally and physically well-connected and responsive' whilst also contributing to outcomes 1,2,3,4,8,12.

Financial Implications

23. The capital investment funding to deliver and IM programme will be confirmed via the Medium-Term Financial Strategy and in year projects through bids for Transformation funds. It estimated Capital funding in the order of £1-2m will be required to deliver a 4-year roadmap of IM improvements. If funding is not available there are some incremental changes the organisation can make in the areas of culture, skills and the use of shared drives however the changes will be incremental rather than transformational to the organisation.

Conclusion

24. Improving information management practices should be a key focus for CoL as it is for most organisations, across both the public and private sectors.
25. This is driven by a range of factors, including a need to improve the efficiency of business processes, the demands of compliance regulations (General Data Protection Regulations) and the opportunities for better decision making with better quality, easy to consume and timely information.
26. The draft metrics suggested will help us take a broad range approach to monitoring and tracking our success in delivering our agreed IM Strategy and the business benefits that should accrue from increasing the insight, understanding and use of information across our organisation

Sean Green

IT Director

Chamberlain's Department

E: Sean.Green@cityoflondon.gov.uk

Appendices

Appendix A – Strategic IM Principles

Appendix B – Draft IM Metrics

Appendix C – Relating IM Metrics to IM Outcomes

Appendix A – Strategic IM Principles

1. **Information acquired by any part of the City Corporation becomes an asset for all of the organisation** - Information will be open, transparent and available across the organisation. Our staff are custodians of our information assets. We only restrict information for legal, commercial or privacy reasons;
2. **Information is stored securely once, kept up to date while needed, and safely disposed of afterwards** - We will educate, encourage and enable staff to store a single version of information that can be added to and amended. We will discourage duplication and encourage information reuse and repurposing. We will insist on safe disposal of information when no longer needed;
3. **We share information appropriately across the organisation, with partners and with the public** - We will enable staff to easily share our information by developing common standards and processes;
4. **Authorised people have easy access to information and to the tools and skills to get the most out of it** - We will provide the information required – securely, quickly, easily, accurately, conveniently, consistently, and transparently. Systems will be procured, designed and developed to enable effective information sharing, analysis and presentation;
5. **We promote the culture and leadership needed to look after, share and use information wisely** - We will develop and nurture new information management values and behaviours, including a drive to continually improve based on experience and research. We will encourage an approach of curiosity and challenge in the use of our information. Departments will be given the skills and capability to lead and champion this ambition.

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Appendix B – Draft IM Metrics

1. Governance and Security

Targets for:	12 Months	24 Months	36 Months
A. Information / data / knowledge assets identified and assigned owners	<ul style="list-style-type: none">List of known digital assets e.g. IT Applications circulated by IT is validated / reduced / expanded and prioritised by depts	<ul style="list-style-type: none">All physical assets of each dept are identified, listed and prioritised by the dept	<ul style="list-style-type: none">All assets for each dept are revisited by the dept and lists / priorities updated
B. Assets comprehensively audited for information security risks	<ul style="list-style-type: none">20% of known assets audited for information security risks and mitigation plans proposed	<ul style="list-style-type: none">Mitigation plans for first 20% agreedFurther 20% audited (40% cumulative) and mitigation plans proposed	<ul style="list-style-type: none">100% (cumulative) audited and mitigation plans agreedKey assets re-audited if needed
C. Staff employed for 12+ months are aware of information security good practice	<ul style="list-style-type: none">50% of qualifying staff have completed annual information security awareness training	<ul style="list-style-type: none">100% of qualifying staff have completed annual information security awareness training	<ul style="list-style-type: none">100% of qualifying staff have <u>repeated</u> annual information security awareness training
D. Sharing protocols in place for those information / data / knowledge assets to be shared	<ul style="list-style-type: none">Sharing protocols agreed and put into practice for 25% of qualifying assets	<ul style="list-style-type: none">Sharing protocols agreed and put into practice for 50% of qualifying assets	<ul style="list-style-type: none">Sharing protocols agreed and put into practice for 100% of qualifying assets

2. Storage and Retention

Targets for:	12 Months	24 Months	36 Months
A. File system shares replaced by SharePoint / Team Sites	<ul style="list-style-type: none">All new files created in SharePoint / Team Sites	<ul style="list-style-type: none">All old files being accessed from file system moved to SharePoint / Team Sites	<ul style="list-style-type: none">All old files not used from file system deleted or archived
B. Staff understand and use protective marking of documents and files	<ul style="list-style-type: none">25% of staff understand and use protective marking	<ul style="list-style-type: none">50% of staff understand and use protective marking	<ul style="list-style-type: none">100% of staff understand and use protective marking
C. Staff understand and apply retention scheme to records and information	<ul style="list-style-type: none">25% of staff understand and apply retention scheme	<ul style="list-style-type: none">50% of staff understand and apply retention scheme	<ul style="list-style-type: none">100% of staff understand and apply retention scheme
D. Storage costs are reduced for digital and physical documents, files and records	<ul style="list-style-type: none">10% reduction in digital storage costs5% reduction in physical storage costs	<ul style="list-style-type: none">20% reduction in digital storage costs10% reduction in physical storage costs	<ul style="list-style-type: none">30% reduction in digital storage costs20% reduction in physical storage costs

3. Data Use

Targets for:	12 Months	24 Months	36 Months
A. Use of property and customer data assets identified and reviewed	<ul style="list-style-type: none"> 5 most critical business apps using these assets are identified, reviewed for quality, recency and commonality of definition for Customer and Property 	<ul style="list-style-type: none"> 10 most critical business apps using these assets are identified, reviewed 	<ul style="list-style-type: none"> 20 most critical business apps using these assets are identified, reviewed
B. Property and customer data mastered and automatically shared	<ul style="list-style-type: none"> 5 most critical business apps share mastered data – data cleaned and held in a reporting database linked together 	<ul style="list-style-type: none"> 10 most critical business apps share mastered data 	<ul style="list-style-type: none"> 20 most critical business apps share mastered data
C. CRM system reuses data to prefill forms and support contact centre interactions	<ul style="list-style-type: none"> 25% of forms pre-filled 25% of calls/webchats supported by access to customer history 	<ul style="list-style-type: none"> 50% of forms pre-filled 50% of calls/webchats supported by access to customer history 	<ul style="list-style-type: none"> 100% of forms pre-filled 100% of calls/webchats supported by access to customer history
D. Key data models built from pooled and cross-referenced data assets	<ul style="list-style-type: none"> 5 models created with meaningful insight e.g. Preventative analysis for Fraud 	<ul style="list-style-type: none"> 10 models created 	<ul style="list-style-type: none"> 20 models created

4. Information Analysis and Presentation

Targets for:	12 Months	24 Months	36 Months
A. Demonstration of evidence-based decision-making for policies and Member recommendations	<ul style="list-style-type: none"> 25% of policies and Member recommendations use information to support decision-making 	<ul style="list-style-type: none"> 50% of policies and Member recommendations use information to support decision-making 	<ul style="list-style-type: none"> 100% of policies and Member recommendations use information to support decision-making
B. Dashboards and self-service reporting are in widespread and regular use by staff and customers	<ul style="list-style-type: none"> 20 dashboard prototypes piloted 20 self-service report prototypes piloted 	<ul style="list-style-type: none"> Every department has a departmental dashboard and some key self-service reports 	<ul style="list-style-type: none"> Every team has a team dashboard and some key self-service reports
C. Information analysis tools and the skills to use them are available to relevant staff	<ul style="list-style-type: none"> Basic and advanced tools and training requirements identified for all relevant staff Tools deployed for Power Bi Users 	<ul style="list-style-type: none"> Key staff trained in basic and advanced tools Self-service training on basic tools available to all relevant staff 	<ul style="list-style-type: none"> All relevant staff have made some use of a tool Use of at least one tool is a performance measure for relevant staff
D. Information presentation tools and the skills to use them are available to managers	<ul style="list-style-type: none"> Basic and advanced tools and training requirements- e.g. Power BI developers identified for all relevant staff Tools deployed 	<ul style="list-style-type: none"> Key managers trained in basic and advanced tools Self-service training on basic tools available to all managers 	<ul style="list-style-type: none"> All managers have made some use of a tool Use of at least one tool is a performance measure for managers

5. Knowledge Development

Targets for:	12 Months	24 Months	36 Months
A. Action-learning sets assigned to deal with cross-functional problems/challenges	<ul style="list-style-type: none">5 sets assigned by SUMMIT or the fundamental review	<ul style="list-style-type: none">10 sets assigned by SUMMIT or the fundamental review	<ul style="list-style-type: none">20 sets assigned by SUMMIT or the fundamental review
B. Intranet used by staff as the knowledge base about internal services	<ul style="list-style-type: none">10% increase in staff usage volume compared to baseline	<ul style="list-style-type: none">20% increase in staff usage volume compared to baseline	<ul style="list-style-type: none">50% increase in staff usage volume compared to baseline
C. Networks of experts across Corporation, partners and customers support development and maintenance of bodies of knowledge	<ul style="list-style-type: none">5 key bodies of knowledge identified for which networks of experts are established	<ul style="list-style-type: none">5 previously established networks are shown to be functioning wellFurther 5 bodies of knowledge identified, and networks established (10 cumulatively)	<ul style="list-style-type: none">20 (cumulatively) bodies of knowledge identified, with their networks established and functioning well
D. Expert systems deployed for functions / specialisms with wide relevance	<ul style="list-style-type: none">Prototype expert system built for one function / specialism	<ul style="list-style-type: none">Expert systems built for 5 (cumulatively) functions / specialisms	<ul style="list-style-type: none">Expert systems built for 10 (cumulatively) functions / specialisms

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Appendix C – Relating IM Metrics to IM Outcomes (read in conjunction with Draft IM Metrics document)

IM Strategy Outcome	IM Metrics Output Measure
1. CoL has the necessary awareness, tools, skills and culture to promote a set of behaviours and values which understands and manages good information management practice.	<ul style="list-style-type: none"> • 1C – staff information security aware; 1D – information sharing protocols • 2B – protective marking; 2C – retention schedule • 3A/3B – reuse of customer/property data; 3C – reuse of CRM data
2. CoL's information estate is safe, relevant, accurate, reliable, used and trusted.	<ul style="list-style-type: none"> • 1A – information assets identified; 1B – assets audited; 1C – staff information security aware; 1D – information sharing protocols • 2A – use of SharePoint/Team Sites; 2B – protective marking; 2C – retention schedule
3. CoL derives real value and benefits from the use of information, data, analysis and modelling.	<ul style="list-style-type: none"> • 3A/3B – reuse of customer/property data; 3C – reuse of CRM data; 3D – building cross-referenced data models • <i>[4A/4B/4C/4D will be relevant once they have been redefined]</i> • 5A – Action-learning sets established; 5B – intranet usage; 5C – experts network established; 5D – expert systems deployed
4. CoL has enough checks, balances and oversight to ensure the successful implementation of this strategy.	<ul style="list-style-type: none"> • <i>This is covered by the IM Governance and to be proposed IM Operating Model – not covered by IM Metrics</i>

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Committee(s)	Dated:
Summit Digital Services Sub Committee (DSSC)	23 rd October 2019 1 st November 2019
Subject: City of London Corporation Information Management Protective Marking	Public
Report of: Michael Cougher - Comptroller Peter Kane - Chamberlain	Summit for Decision DSSC for Information
Report authors: Sean Green – IT Director	

Summary

The Information Management (IM) Strategy was agreed by Summit in March 2019 and the Digital Services Sub-Committee in July 2019.

A Corporate risk was developed in March 2019 (see Appendix A below) that recognises the cultural and maturity issues the organisation faces currently with how we manage and support good information management curation and practices.

This paper presents the proposal to implement the national UK government protective marking schema in the organisation which, based on our current Microsoft licencing, will initially be manually applied however with future licence investment in 20/21 much of this can also be automated.

Recommendation(s)

Members are asked to:

- Note this report

Main Report

Background

1. In March 2018 Summit agreed the IM Strategy
2. The strategy seeks to transform IM capabilities (tools and skills) and culture (values and behaviours) across CoL and its partners so that accurate and timely information is routinely and effectively used as the basis for decisions and actions, thereby leading to better service outcomes.
3. When the IM Strategy was presented to Summit in March 2019 it was recognised that a corporate risk should be created (See Appendix A attached)
4. Protective Marking came into effect in April 2014 and describes how HM Government classifies information assets to ensure they are appropriately protected; support Public Sector business and the effective exploitation of

information; and meet the requirements of relevant legislation and international / bilateral agreements and obligations.

5. The Government's protective marking system is designed to help individuals determine, and indicate to others, the levels of protection required to help prevent the compromise of valuable or sensitive assets. The markings signal quickly and unambiguously, the value of an asset and the level of protection it needs.
6. It applies to all information that government collects, stores, processes, generates or shares to deliver services and conduct business, including information received from or exchanged with external partners.
7. Everyone who works with government has a duty to respect the confidentiality and integrity of any HMG information and data that they access and is personally accountable for safeguarding assets in line with this policy.
8. HMG information assets may be classified into three types: OFFICIAL, SECRET and TOP SECRET. Each attracts a baseline set of security controls providing appropriate protection against typical threats. Additionally, ICT systems and services may require enhanced controls to manage the associated risks to aggregated data or to manage integrity and availability concerns.
9. The City of London Police applies security classification to all documents and emails internally and externally and has been in force for many years.
10. The use of the protective marking schemas in of itself can change the culture of how staff perceive and value the information that they manage on behalf of the organisation.
11. As we move to a more flexible model of remote working from smaller locations and home the potential for in appropriate handling and release of sensitive information could increase therefore the cultural impact that protective marking should bring about should be of benefit to CoL.
12. In summary implementing a simplified protective marking scheme improves our information security and supports the mitigating actions for CR29 (see Appendix A attached).

Proposal for Implementation of Protective Marking

13. It is proposed that CoL will apply protective labelling in a more pragmatic and practical way than the standard definitions provided by National Government with 4 labels and sub-categories that staff can choose that will be both be applied in the header, footer and watermark of the document
14. The proposed 3 labels chosen from a drop-down list are:

- a. Suitable for Publication – Business data that is specifically prepared and approved for public consultation;
- b. Official – All routine public sector business, operations and services should be treated as OFFICIAL;
- c. Official Sensitive – A limited subset of OFFICIAL – information could have more damaging consequences (for individuals, an organisation or government generally) if it were lost, stolen or published in the media.

Note: Anything not marked will be considered as Non-business data for personal use only;

15. When Official Sensitive is chosen any email used to send the document will be encrypted. In addition, for this category there are 3 sub-categories that the member of staff will be offered from a drop-down list which are:
- a. Internal only – Will be encrypted so that it can only be opened with internal organisational email address or through whitelisted email addresses or domains;
 - b. Commercial – Email or document can be externally sent and opened but will be encrypted.
 - c. Personal Data – Contains personal data as defined by the data protection act. Can be sent externally but will be encrypted.
16. The process for applying labels to documents will be manual with a default to 'official'.
17. Alongside the small system changes there will be online training and an information management cultural change and communication campaign planned to run from 21st October – 15th November.
18. In the future when we upgrade our current Microsoft licences, we can automate the application of protective marking labels based on sensitive and personal data detected in documents using Artificial Intelligence rules.

Next Steps

19. Following launch of Protective Marking staff will be encouraged to undertake short training course and explanation of the benefits of the using the schema will be communicated through communication campaigns.
20. Feedback and use of Protective Marking will be sought 3 months after launch to evidence mitigation of the Corporate IM risk (see Appendix A below).
21. Further automation (using AI rules) and protection of sensitive data should be implemented in 2020 following proposed upgrades to the organisation's Microsoft Office licences.

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Appendix A – IM Corporate Risk



Appendix A – IM Risk - CR29

Report Author: Paul Dudley

Generated on: 16 August 2019

Rows are sorted by Risk Score

Risk no, title, creation date, owner	Risk Description (Cause, Event, Impact)	Current Risk Rating & Score		Risk Update and date of update	Target Risk Rating & Score		Target Date	Current Risk score change indicator
CR29 Information Management	<p>Cause: Lack of officer commitment and investment of the right resources into organisational information management systems and culture.</p> <p>Event: The City Corporation's IM Strategy (2018-2023) is not fully and effectively implemented</p> <p>Effect:</p> <ul style="list-style-type: none"> • Not being able to use relevant information to draw insights and intelligence and support good decision-making • Vulnerability to personal data and other information rights breaches and non-compliance with possible ICO fines or other legal action • Waste of resources storing information beyond usefulness 	<p>Likelihood</p> <p>Impact</p>	12	<p>The Information Management strategy has been agreed subject to a more detailed action plan and metrics to track performance.</p> <p>Progress is being made in developing a draft retention and disposal policy alongside reviewing roles to support good information management in the organisation and the business case for investment in tools required to help us manage and use our information more effectively.</p> <p>A draft Information Metrics model has been developed and discussed with the Information Management Board this now needs a final</p>	<p>Likelihood</p> <p>Impact</p>	6	30-Jun-2020	

08-Apr-2019 John Barradell				review with the Corporate Strategy and Performance team before being shared with Summit in September 2019 09 Aug 2019				Constant
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Action no	Action description	Latest Note	Action owner	Latest Note Date	Due Date
CR29a	Ensure that CoL has the necessary awareness, tools and, skills to manage information effectively	Work with the Head of Communications to communicate/raise awareness the IM Strategy and Policies. Provide training in SharePoint in preparation for migrating the Shared drives. Implement protective marking and information classification in CoL. Sharepoint to become the Corporate document management solution. Launch of this to be October 2019	Sean Green	09-Aug-2019	31-Oct-2019
CR29b	Start the culture change by Integrating good information management practice into the Leadership and Management stand of the City of London Learning Academy	HR to work with the IT and the Corporate Strategy and Performance teams to identify the key skills required for good information management. HR to then develop the training to support this. HR to review where in HR policies and procedures this can be integrated. HR to Work with the senior leadership team to develop a plan and then deliver key messages and communications on the importance, relevance and benefits of good information management. Meeting held with HR who have agreed to support the development of training for the October launch	Chrissie Morgan	09-Aug-2019	31-Mar-2020
CR29c	Ensure that CoL's information estate is safe, relevant, accurate, reliable, used and trusted.	Implement and communicate relevant IM policies and IM Security.	Sean Green	09-Aug-2019	30-Sep-2019

		<p>Develop and agree a Data Retention policy that links in with departmental retention schedules taking advice from the LMA.</p> <p>Draft Policy being reviewed by LMA to take back to SRG and Summit</p> <p>Draft records Mgt policy being presented to Info Gov Group at the end of July 19 and then to Summit in September 19</p>			
CR29d	Ensure that CoL's derives real value and benefits from the use of information, data, analysis and modelling	<p>IT to deliver the Business Intelligence Infrastructure to ensure that the Corporate Strategy and Performance team have the tools to develop business intelligence reports and analytics to support better decision making across CoL.</p> <p>Scope has been developed and is out for approval.</p>	Sean Green; Kate Smith	09-Aug-2019	30-Aug-2019
CR29e	Ensure that CoL has the necessary checks, balances and oversight to ensure successful implementation of the IM Strategy	<p>The Digital Services Task and Finish group to be established to provide governance and assurance that the strategy is being delivered. New IM Policies and compliance are already governed via the IM Governance Board.</p> <p>Meeting of this group booked has been delayed due to staff availability to attend. Now due to occur in September 2019</p>	Sean Green	09-Aug-2019	30-Sep-2019
CR29f	Ensure officers can implement the data retention policy and data discovery requirements from GDPR	<p>Put in place a new Data retention and discovery toolset to ensure we only retain and archive information in line with the agreed policy and retention schedule.</p> <p>Plan to use readily available MS tools and pilot the move of shared drives to MS Teams</p>	Sean Green	09-Aug-2019	30-Nov-2019

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Committee(s)	Dated:
Digital Services Sub-Committee	1st November 2019
Subject: Windows 7 Migration and Extended Support	Public
Report of: The Chamberlain	For Information
Report author(s): Shoid Islam, Head of Applications Matt Gosden Deputy IT Director	

Summary

Contributing towards the City of London Corporation (CoL) Digital and modernisation agendas the CoL's IT team have been working on decommissioning the Windows 7 platform along with the associated infrastructure.

This document describes:

1. The work undertaken to identify the remaining Windows 7 devices within the COL environment.
2. The effort expended to remediate applications which retained a reliance on Windows 7.
3. The plan to remediate the remaining application prior to the end of windows 7 support.

Recommendations

Members are asked to note this report

Main Report

Background

1. In addition to rationalising the applications in use within the Corporation from c. 1,200 to c. 300; prior to IT transformation, the standard Corporate device was running on the Windows 7 Operating System (OS). A concerted effort was made to remove as many Windows 7 devices as part of the Transformation project.
2. Microsoft Extended support for Windows 7 comes to an end on the 14th January 2020.
3. The transformation project highlighted and documented as an outcome, that a separate workstream would be required to decommission the remaining Windows 7 devices, as it wasn't able to eradicate all Windows 7 devices due to the legacy applications which were still in use but were not compatible with Windows 10.
4. A new workstream was initiated to remove the remaining Windows 7 devices off the network. To ensure that the Corporation had fully mitigated against the risk of running an unsupported platform which would compromise the Corporations PSN accreditation, a thorough due diligence piece of work was undertaken to ensure all the information was captured.
5. The information from the discovery work formed the basis of the plan. The principles of the plan were based on the Application Management Strategy of rationalisation where possible. As well as the using two of the four core tenets of the IT Strategy which are, Compliant Systems and services, and use fewer systems more effectively.

Discovery work

6. Extensive analysis work has been carried out to ensure that all Windows 7 devices connecting to the COL network have been identified. This discovery work has provided COL IT with a comprehensive record for the devices such as the user, location and usage data. The 26 remaining devices that were identified were geographically dispersed meaning that different lines of businesses were still making use of the devices. In many cases, a Windows 7 is in use because of a single application. In other cases, an application is in use across a number of Windows 7 devices within a business function.
7. Additional information was subsequently gathered to identify the applications running on these devices and the importance of these applications to the user top determine which should be upgraded to Windows 10 equivalent applications and which could be removed/decommissioned.

Remediation

8. An example, of the Windows 7 remediation work that we have undertaken is the software that us used to run the mail merge process in the Housing Management system Orchard.
9. This software was identified as a crucial Line of Business application as the Housing team are dependent on these documents to ensure that legal, financial and informative documents are processed and sent out in a timely manner.
10. During the Transformation Programme, the application was not certified to work with Windows 10. The vendor has now updated its support matrix and has included the current version to be compatible with Windows 10.
11. COL IT have therefore started the process to migrate away from the Windows 7 version to a new Windows 10 version which has now been created. It is anticipated that this application will be successfully migrated by the end of the calendar year.

Plan

12. The remediation work to date has meant that 19 Windows 7 devices (of the initial 26) have been successfully remediated and removed from the network. Currently there are only 7 remaining Windows 7 devices which require remediation as detailed in appendix 2.
13. COL IT are confident that all windows 7 devices will be remediated and removed before the end of extended support date of 14th January 2020. However, there is a concern that 3.3 Hazcol maybe not be resolved within this timescale as a signed off specification is yet to be received back from the Business. The business partner for Markets and Consumers has engaged with the business to assist and obtain a signed of specification which COL IT can then use to develop a form which will meet the business needs. The form will need to go through a cycle of user testing, before being signed off to be transitioned to Live.

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Committee(s)	Dated:
Digital Services Sub Committee (DSSC)	1 st November 2019
Subject: The case for a Security Operating Model	
Report of: Chamberlain	Public For Information
Report author: Gary Brailsford-Hart ,Director of Information & Chief Information Security Officer	

Summary

The City of London is dependent on IT to facilitate business operations. In today's knowledge-driven economy, information is critical to the City of London's ability not only to survive, but also to thrive. Experienced business leaders know that information deserves at least the same level of protection as any other asset, and have included information security as an addition to the senior board.

However, information security faces a myriad of challenges, including changing risk profiles, lack of funding, cultural issues, and internal and external threats. Managing information security has never been so critical, yet there are very few formal models that help information security do so effectively. Of the few models that do exist, even fewer consider how the enterprise changes, how the culture adapts, and what may or may not emerge as a result. Current models tend to be static and simple, while environments are continuously changing. The City of London requires a Security Operating Model that recognises that it is a dynamic organisation, and provides a way the information security function can take a holistic approach to managing information security while directly addressing business objectives. The model must also provide a common language for information security and business management to talk about information protection.

Recommendation(s)

Members are asked to:

- Support the development of a Security Operating Model;
- Endorse the identified measures within the 10 steps gap analysis.

Main Report

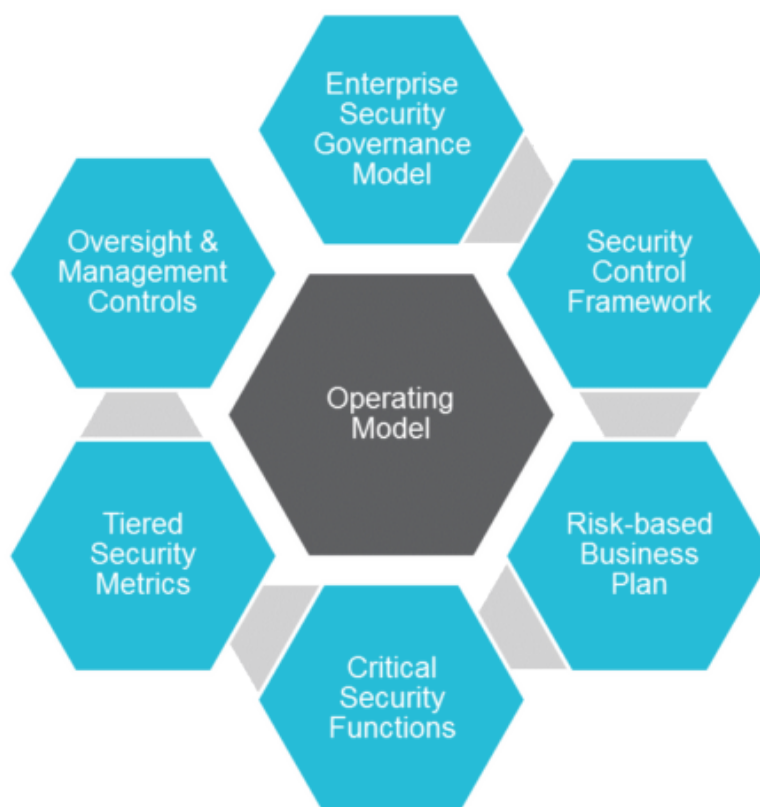
Background

1. Monitoring the state of security across the last twelve months within the City of London has identified a clear focus almost exclusively on deploying technologies, implementing “best practices,” or responding to a continuous stream of alerts and issues. The result has produced a reactive security function, busy with activity but unable to address the more pressing needs of preparedness and getting ahead of the alert. This has sometimes resulted in challenges between the business and the delivery needs of the security function. Security efforts are seen as expensive—doing more to slow rather than secure and enable the business.
2. A more strategic approach is necessary. It acknowledges the reality that security needs will always exceed security capacity, provides direction to optimise security resource allocations, and demonstrates progress toward a more secure organisation. This approach requires the security function to transition from security performance to strategic security by:
 - Changing the focus from security controls to security risks: Risk is the basis for all security decision making and performance management;
 - Transitioning ownership of security risks: The security function does not own security risk decisions, the business does;
 - Implementing a security operating model to govern this strategic approach: Establishing priorities, expectations, and oversight of risks and efforts to address them.
3. The security functions focus is on identifying risks, recommending responses to these risks, facilitating the appropriate tradeoff decisions related to these risks, and providing line of sight to the execution of these risk responses.
4. A security operating model enables this approach. It provides governance and oversight of security across the City of London, where the business is not only a recipient of the security services, but is also instrumental in the collaboration,

implementation, and sustainability of security efforts. When viewed holistically, the operating model utilizes a risk-based approach to identify and prioritize risk mitigation efforts to appropriately secure the enterprise's mission. The core of a security operating model is a collaborative continuous improvement process designed to sustain the controls that secure the enterprise.

Implementing a Security Operating Model

5. There are 6 Components of the Security Operating Model these are described in the narrative below:



- **Enterprise Security Governance Model**
Establishing a security executive committee with senior leadership from across the organisation can balance the security risks to the organisation with the overall costs.

- **Security Control Framework**

An industry-accepted controls framework provides the structure and guidance to identify best practices and target gaps in potential security coverage.

- **Risk-based Business Plan**

The objective of the business plan is to allocate security resources appropriately based on the risks to the organisation.

- **Critical Security Functions**

Core functions represent areas so vital for success there must be formally controlled guidance and expectations through policies, programs, processes and tools.

- **Tiered Security Metrics**

“What gets measured gets improved” – Security metrics are critical to understanding the health of the core function and provide a transparent picture of the security of the organisation.

- **Oversight & Management Controls**

Management oversight ensures everything ties together like a continuous improvement loop. Management controls ensure the organisation is readily able to check performance and adjust direction as needed.

6. The security operating model can be delivered through:

- Clearly defined governance and oversight responsibilities, including scope of asset responsibilities
- A risk-based planning process that engages business stakeholders in risk tradeoff decisions and prioritizes security investments and utilization of scarce resources
- A security program that defines and documents security expectations of asset owners throughout the enterprise
- Oversight mechanisms that provide an objective view of enterprise security risks and performance against the security controls, both implementation and sustaining performance

7. This model provides the City of London's agreed-upon approach for responding to security risks and establishes expectations for who is responsible for what. This becomes the baseline that security performance is monitored against.

Ten Steps Gap Analysis

8. A ten steps gap analysis has been undertaken against the SANS 20 Critical Security Controls and is provided at Appendix 1. This analysis identifies a requirement for continued investment in additional controls across staffing, services or product purchasing. Where security improvements are identified these should be considered in the total security context across the CoL environment and, where appropriate, seek to reduce costs through a joint solutions approach that benefit not only the core network services but also institutional departments.

Conclusion

9. The gap analysis undertaken against the current control framework identifies a number of areas requiring enhancement and attracting expenditure. The development of a Security Operating Model across a three year plan would provide the City of London the ability to smooth future expenditure, provide a robust framework for risk management and mitigation, and enhance the resilience capabilities into current and future programmes.

Appendices

- Appendix 1 – NON-PUBLIC: Security Operating Model Gap Analysis

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