

Rainmaker

Microsoft Licensing review

London Borough of Harrow

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1 Introduction and purpose

London Borough of Harrow's Microsoft Enterprise Agreement is due for renewal on 30 June 2019. Technology plans over the next 12-18 months involve a migration of core services to the Microsoft 365 technology stack. In light of this, Rainmaker has been engaged to evaluate Harrow's existing Microsoft licensing and recommend requirements for a renewed Microsoft Enterprise Agreement.

2 Assumptions and exclusions

- Rainmaker has only performed limited onsite review of the Harrow license estate. As such, recommended licensing is based on current active licenses with Software Assurance. Harrow's specific renewal volumes should be validated by audit of usage and need, which we have not undertaken in the short time available. Usage audits should be repeated annually to 'true up' or 'true down' license volumes on the Enterprise Subscription anniversary.
- Rainmaker Solutions is not a software reseller and as such is not recommending specific Microsoft SKUs to purchase for the licensing renewal. Dedicated Microsoft software resellers will be able to provide the most cost-effective means to acquire the required product and user licenses for the items identified as part of our review. This document's purpose is to outline Harrow's licensing requirement for the 30 June 2019 renewal.
- It is assumed that Harrow will purchase a new Enterprise Subscription
 Agreement and enabled Microsoft 365 services via appropriate add-ons
 purchased via the software resellers.
- License volumes cited in this document are based on current licensing levels, which is assumed to be correct. Exact current user numbers are not known by Rainmaker Solutions and are assumed to be known by Harrow Council.

3 Current licensing

Harrow currently has two active subscriptions:

- Enterprise Subscription Agreement
- Select Plus

The Enterprise Subscription forms the core Enterprise Agreement with the 'Select Plus' subscription serving as a 'pay-as-you-go' model to acquire additional licensing as and when required.

All existing Microsoft licensing levels are shown in <u>Appendix A</u>. Those shown with active Software Assurance will be those acquired via the current Enterprise Subscription. Other legacy licenses (without active Software Assurance) are assumed to be perpetual licensing acquired via previously expired Enterprise Agreements.

a Enterprise Subscription Agreement

Harrow currently purchases an Enterprise Agreement Subscription from Microsoft. This is similar to an Enterprise Enrollment but at the end of the three-year term Harrow will not retain perpetual rights to the licenses that are purchased.

The current subscription provides entitlements for the following components and will need renewal:

- Windows Enterprise
- Office Professional Plus
- Core CAL suite for 2042 users, to include:
 - Windows Server CAL
 - Exchange Server CAL
 - SharePoint Server CAL
 - Skype for Business Server CAL
 - System Center Configuration Manager CML
 - System Center Endpoint Protection
- Software Assurance

Recommendation

The Enterprise Subscription Agreement should be renewed for all active Harrow users – 2042 based on current Enterprise Subscription. This will maintain the base user licenses required to use current core Microsoft software.

Rainmaker strongly recommends that current user volumes are validated against active usage to ensure the correct number of licenses are procured.

b Select Plus

On top of the Enterprise Subscription Agreement, licensing has been procured (assumed to be via the Select Plus subscription model) for:

- Windows Server
- Remote Desktop Services (for use with Citrix)
- SharePoint Server
- SQL Server
- Exchange Server
- Microsoft Dynamics 365
- Project Online
- Visio Online
- Enterprise Mobility + Security
- Office 365 E3 Cloud Add-on

This agreement allows ad hoc purchases for licenses as required.

4 Windows Server

Most of Harrow's server estate is virtualised, with licensing presumably applied by the 22 Windows Server Datacenter licenses. These are licensed per server core. Virtual Windows Server instances hosted within this environment do not require distinct Windows Server licenses.

Assumption

It is assumed that the current VMWare host environment has enough capacity and processor power for current and medium-term needs and as such the current Windows Server Datacenter licensing is sufficient.

There are currently 32 standard Windows Server licenses of which 26 are under active software assurance. On the provided Harrow server list, there are 33 physical Windows Server devices, although two are listed as awaiting disposal and a further four are listed as being returned for maintenance and are thus presumed to not be actively deployed. Consequently, it is assumed that the 26 licenses under active Software Assurance are accurate for Harrow's needs in this respect, but this should be validated.

Product	Version	Volume
Windows Server - Standard	2012 R2	26
Windows Server Datacenter - 2 Proc	2012 R2	22

5 Remote desktop (Citrix)

Harrow provides virtual desktop via thin clients to approximately 800 employees using Citrix. To be able to access the remote Windows experience, users require a Windows Remote Desktop Services User CAL.

Recommendation

Harrow currently holds 1500 User CALs for Windows Desktop Services, which is nearly double the number of reported users with thin client devices. Whilst it can be assumed that Citrix is also used for remote access to the Harrow environment, it is recommended to review this number to potentially reduce required licensing levels.

Product	Version	Volume
Windows Remote Desktop Services - User CAL	2019	1500

6 SharePoint Server

Harrow has two SharePoint Server instances – one primary SharePoint 2010 environment which the whole council has access to and a secondary 2013 instance which is linked to the Contact Centre CRM solution provided by Capita which is not subject to change.

Whilst it would be possible to replace SharePoint 2010 with SharePoint Online this will not be possible within the current agreement period and SharePoint Server licensing will thus be required for this.

Key information

SharePoint Server 2010 Extended Support runs out on 13 October 2020. At this point, Harrow should either have replaced it with SharePoint Online (recommended) or upgraded to SharePoint Server 2019.

It is assumed that the Enterprise CAL licensing for the Capita SharePoint 2013 instance that is part of the Contact Centre CRM is required to be renewed as-is, alongside existing SharePoint Server licensing. If the existing usage of SharePoint 2010 is migrated to Office 365, SharePoint Server licensing can, however, be trued down to just the SharePoint 2013 Contact Centre solution. SharePoint Online will be more than capable of hosting all modern SharePoint collaboration and there should be no requirement to maintain the SharePoint 2010 farm as an upgraded on-premises solution.

Recommendation

It is recommended that Capita is engaged to confirm licensing requirements for acquired SharePoint Server licensing and Enterprise User CALs for the Contact Centre SharePoint 2013 solution to ensure that renewal volumes are optimised.

The SharePoint Server licensing for this solution is in addition to the Server licensing used on the SharePoint 2010 farm.

Product	Version	Volume
SharePoint Server	2019	6

2019

90

7 SQL Server

Harrow SQL databases are hosted on a SQL cluster. Licensing is procured per CPU core. The provided server list from Harrow does not specify the number of cores used for the SQL Server estate and it is assumed that existing licensing levels are accurate. The following products should therefore be renewed:

Product	Version	Volume
SQL Server Standard Core	2017	46
SQL Server Enterprise Core	2017	4

Recommendation

Assessment of SQL Server core usage should be conducted to ensure that current licensing levels are correct before renewal.

8 Exchange Server

Harrow currently has an on-premises Exchange 2010 environment with associated Exchange Server licensing. User CALs are provided via the Core CALs within the Enterprise Subscription Agreement.

As part of planned technology upgrade, mail will be migrated to Exchange Online. This will, however, most likely require an Exchange Online hybrid and for some on-premises Exchange Server footprint to remain. Whilst the current licensing level is

for five Exchange Servers, within a hybrid configuration it is likely that this can be 'trued down' to a smaller Exchange on-premises configuration (e.g. single pair of Exchange 2019 servers). For renewal, however, the current environment must be licensed as-is.

Product	Version	Volume
Exchange Server - Enterprise	2019	5

9 Dynamics

Harrow uses Dynamics as its CRM within the contact centre. It is assumed that all current licensing volumes are accurate. Renewal should thus include:

Product	Version	Volume
Dynamics CRM Professional - User CAL	2015	57
Dynamics CRM Server	2016	1
Microsoft Dynamics 365 for Customer Service (on-premises) - User CAL	2019	124
Microsoft Dynamics 365 for Sales (on- premises) - User CAL	2019	124

Recommendation

It is recommended that Capita is engaged to confirm licensing requirements for acquired Dynamics 365 modules to ensure that renewal volumes are optimised.

10 Skype for Business Server

Harrow currently uses Lync for instant messaging and desktop sharing. This is installed on an on premises Lync Server licensing. User CALs are provided via the Core CALs within the Enterprise Subscription Agreement.

Lync Server licensing will require renewal to be used after the Enterprise Agreement renewal.

Recommendation

Harrow's use of Lync is relatively simple (does not include Enterprise Voice) and Harrow could choose to immediately migrate existing IM and desktop capability currently performed by Lync to Microsoft Teams. This would eliminate the requirement for Skype for Business Server licensing. However, due to existing timelines, this is unlikely to be completed or deployed before the EA renewal on 30 June 2019. As such on premises server licensing will be required. This migration should take place, however, and Lync licensing 'trued down' on the agreement anniversary.

Product	Version	Volume
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11 Microsoft Office

All users are currently licensed for Microsoft Office Professional up to the latest version (2019), although 2010 is deployed. Harrow is intending to roll out Windows 10 later in 2019 alongside a migration of email to Exchange Online. This will require modern versions of Office to be installed. The current plan is to deploy Windows 10 with Microsoft Office Professional 2016 installed and eventually move to Office 365 Pro Plus (the 'click-to-run' variant of Office with deeper integrations into Office 365).

a Office Professional Plus

Harrow currently has 2464 copies of Office Professional Plus with active Software Assurance, which is in excess of the 2042 users purchased under the Enterprise Subscription. It is assumed that the additional 422 licenses are intentionally purchased and deployed, and renewal is required to maintain the as-is environment.

Recommendation

Harrow should investigate the additional deployment of 422 Office Professional Plus installations and validate whether these are required. This would represent a 20% increase in reported user installation base.

Current usage should be cross-referenced against user types to ensure optimum license types are procured. Full licensing may not be required for front-line workers for example and can be explored via the Microsoft 365 licensing tiers.

b Office 365 Pro Plus

Office 365 Pro Plus licensing is provided with Office 365 Enterprise subscriptions. Office 365 Pro Plus is equivalent to the latest version of Microsoft Office but has deeper integrations with Office 365 and is continually upgraded either on a monthly or semi-annual upgrade channel. Harrow will undoubtedly have dependencies on third-party add-ons into Office for legacy applications that could potentially not be compatible for the latest versions of Office and may require Harrow to remain with Office Professional Plus for the short term, but these should be identified and removed where possible. Office 365 Pro Plus is required for more advanced collaboration features such as real-time document collaboration.

c Project Online

Harrow has previously purchased licensing for Microsoft Project and retains perpetual licenses for Project 2013, Project 2010 and Project 2007 but as these have no active Software Assurance these will have been acquired under a previous Enterprise Agreement.

Current Project licensing has been acquired via a Project Online subscription for 50 users. It is assumed that this volume of licenses is required for current usage and thus should be renewed as-is.

Recommendation

Actual assignment of the Project Online licenses can be tracked at https://admin.microsoft.com/Adminportal/Home#/licenses using a Microsoft 365 Global Admin account. Actual renewed licenses could be reduced accordingly dependent on active use.

Product	Version	Volume
Project for Office 365		50

d Visio Online

Harrow has previously purchased licensing for Microsoft Visio and retains perpetual licenses for Visio 2013, Visio 2010 and Visio 2007 but as these have no active Software Assurance these will have been acquired under a previous Enterprise Agreement.

Current Project licensing has been acquired via a Visio Online subscription for 50 users. It is assumed that this volume of licenses is required for current usage and thus should be renewed as-is.

Recommendation

Actual assignment of the Visio Online licenses can be tracked at https://admin.microsoft.com/Adminportal/Home#/licenses using a Microsoft 365 Global Admin account. Actual renewed licenses could be reduced accordingly dependent on active use.

Product	Version	Volume
Visio Online Plan 2		50

12 Windows

Harrow currently owns 1163 Windows licenses for all user devices (not Citrix). It was believed that the actual number of Windows devices in use could exceed this number. These must be re-licensed. However, for these core users, this licensing could be acquired via a 'Microsoft 365' bundle to incorporate Microsoft Online services and security.

Recommendation

Actual Windows usage should be confirmed via deployment statistics in SCCM, if available and renewal numbers defined accordingly.

13 Microsoft 365

Harrow already has some licensing for Microsoft Online services:

- 626 x Enterprise Mobility + Security E3 licenses: used for mobile device management of Harrow's mobile IT estate
- 158 x Office 365 Plan E3 Cloud Add-On: applied to Harrow iPad users to allow them to have access to the mobile Office applications

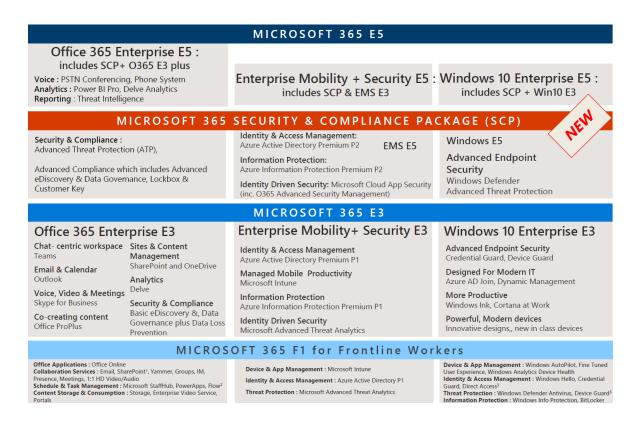
With Harrow's planned further adoption of Office 365, existing cloud licensing should be consolidated to the Microsoft 365 suite (formerly known as 'Secure Productive Enterprise'). This comprises:

- Office 365
- Enterprise Mobility + Security (EM+S)
- Windows 10 Enterprise

M365 is offered in three tiers:

- M365 E3 (standard)
- M365 E5 (premium)
- M365 F1 (kiosk version for frontline workers)

Both the E3 and E5 tiers provide a complete licensing suite to allow users to connect to both cloud and on premises services, alongside robust security and protection to ensure the integrity of organisational Information Security.



a Core Windows users

The M365 licenses should be procured for every core Windows user. EM+S will be required for all users irrespective of whether they have a council-issued mobile device. Providing secure, flexible access to Office 365 would require Azure AD Conditional Access policies that leverage Intune device and app management to ensure access to council data stored in the Microsoft cloud is secured and available only to managed devices or applications.

b Thin client users

Dependent on pricing, the full M365 E3 may not be the most economical option for thin client users who are not provided with a dedicated Windows device. The M365 E3 subscription would provide a full Windows Enterprise license which would not be required for this user group. These users will require RDS CALs for Citrix instead.

It may be more cost effective for these users to be provided with equivalent Office 365 E3 licenses for the core cloud productivity suite and EM+S E3 licenses for managing 'any device anywhere' access as add-ons to core licensing instead of the full M365 E3.

c Front line users

For front line council workers who may have a requirement to access email, file storage and collaboration tools such as Yammer or Microsoft Teams but do not use either a Council-provided Windows device or Citrix remote desktop, Microsoft 365 F1 licensing is an appropriate choice. Harrow should evaluate user numbers and potentially reduce costs by licensing this tier.

d Security and Compliance Package (SCP)

Microsoft has recently brought a new SKU to the market for Government customers to benefit from the advanced security and compliance features of the Office 365 E5 suite without having to commit to the full E5 suite prices.

Harrow has not yet migrated any core services to Office 365. As Harrow's usage of Office 365 matures, additional security and compliance capability may be required. However, the capabilities in this sphere provided by Enterprise Mobility + Security E3 (included in the M365 E3 suite) would be sufficient for Harrow's needs. A single license commitment would allow usage of SCP to be ramped up at a later stage. If, for example, it was used to replace other third-party products (e.g. mail hygiene solutions).

e Cloud telephony

Harrow is likely to replace its existing telephony infrastructure within the lifecycle of the next Enterprise Agreement. One option for this would be to implement Phone System as part of Microsoft Teams. In order to lock in current pricing as well as potentially allow early pilots, single licenses of the following online licensing should be acquired:

- Phone System
- Audio Conferencing
- Domestic Call Plan
- Skype for Business Online P2 (would be required to uplift lower-tier M365 licensing as a standalone if full E5 was not chosen)

f PowerApps and Flow

PowerApps and Flow provide advanced application and workflow tooling. All Microsoft 365 Plans include PowerApps and Flow. Flow can also be used as an advanced serverless integration layer between multiple systems. More advanced usage could require premium connectors available only in dedicated PowerApps and Flow plans. Whilst this is not expected immediately, single license lock in is advisable to protect current pricing.

g License summary

The table below depicts the recommended licensing to be acquired on top of the renewed Enterprise Subscription Agreement.

Recommendation

A review of Harrow user types should be conducted to ensure that correct volumes of the correct license types are procured. This should specifically address volumes of:

- Core users with Windows devices
- Thin client users
- Front line 'kiosk' workers who may not require access to fullyfledged desktop experience.

Product	Volume
Microsoft 365 E3	All Windows users (circa 1400)
Office 365 E3	All thin client users (circa 800)
Enterprise Mobility and Security E3	All thin client users (circa 800)
Microsoft Office 365 F1	Frontline workers with need for email/files etc but no PC device. At least 1 license to lock in price.
Security and Compliance Package	1 license to lock in price
Enterprise Mobility + Security E5	1 license to lock in price
Phone System	1 license to lock in price

Audio Conferencing

Domestic Call Plan

1 license to lock in price

1 license to lock in price

1 license to lock in price

PowerApps P1

1 license to lock in price

PowerApps P2

1 license to lock in price

Flow P1

1 license to lock in price

14 Premier Support

In addition to standard licensing Microsoft provide a number of value-add services including 'Premier Support' packages. These are designed specifically for a customer's needs and typically include a number of pro-active and reactive support hours as well as technical workshops and health checks. The key benefit, however, for Premier Support is that all contracts include unlimited reactive support hours for Microsoft Online services. This provides a superior support service for any issues relating to services migrated to the Microsoft cloud e.g. Exchange Online, SharePoint Online, Intune, Azure AD etc. With greater use of Microsoft 365 services this would be an invaluable asset in the event of any service-affecting issues.

Recommendation

As Harrow begins to use more of Microsoft's cloud productivity solutions as core services, it would be advisable to negotiate a Premier Support contract with the focus on online reactive hours. This will provide faster support responses with routes into core Microsoft Product teams for issue resolution.

Appendix A: Existing Microsoft licensing

All currently available licenses are detailed in the table below:

Product Pool	License Product Family	License Version	Effective Quantity	Unresolved Quantity	Active SA Quantity
Applications	Access	2013	3	0	0
Applications	Access	2010	44	0	0
Applications	Access	2007	11	0	0
Applications	Excel	2010	2	0	0

Applications	Excel	2007	1	0	0
Applications	MapPoint	2011	4	0	0
Applications	Office Professional	Plus 2010	103	0	0
Applications	Office Professional	Plus 2007	33	0	0
Applications	Office Professional Plus	2019	2464	0	2464
Applications	Office Standard	2013	154	0	0
Applications	Office Standard	2010	87	0	0
Applications	Office Standard	2007	68	0	0
Applications	Project	2013	11	0	0

Applications	Project	2010	29	0	0
Applications	Project	2007	9	0	0
Applications	Project for Office 365		50	0	50
Applications	Project Professional	2010	2	0	0
Applications	Project Professional	2007	1	0	0
Applications	Publisher	2010	12	0	0
Applications	Publisher	2007	1	0	0
Applications	Visio Professional	2010	5	0	0
Applications	Visio Professional	2007	6	0	0

Applications	Visio Standard	2013	10	0	0
Applications	Visio Standard	2010	40	0	0
Applications	Visio Standard	2007	45	0	0
Servers	Dynamics CRM Professional - User CAL	2015	57	0	0
Servers	Dynamics CRM Server	2016	1	0	1
Servers	Enterprise Mobility and Security E3		626	0	626
Servers	Exchange Server - Enterprise	2019	5	0	5
Servers	Exchange Server - Enterprise	2010	2	0	0
Servers	Exchange Server - Standard	2010	5	0	0

Servers	Exchange Server Standard CAL - Device CAL	2010	35	0	0
Servers	Exchange Server Standard CAL - User CAL	2019	2042	0	2042
Servers	Exchange Server Standard CAL - User CAL	2013	41	0	0
Servers	Exchange Server Standard CAL - User CAL	2010	1500	0	0
Servers	Forefront Threat Management Gateway Standard Edition - Per Processor	2010	4	0	0
Servers	ISA Server Enterprise - 1 Processor	2006	1	0	0

Servers	Microsoft Dynamics 365 for Customer Service (on-premises) - User CAL	2019	124	0	124
Servers	Microsoft Dynamics 365 for Sales (on-premises) - User CAL	2019	124	0	124
Servers	Office 365 Plan E3 Cloud Add-On		158	0	158
Servers*	Project Server - Device CAL	2010	2	0	0
Servers*	Project Server - Device CAL	2007	1	0	0
Servers	SharePoint Server	2019	6	0	6
Servers	SharePoint Server Enterprise CAL - User CAL	2019	90	0	90
Servers	SharePoint Server Standard CAL - User CAL	2019	2042	0	2042

Servers	Skype for Business Server	2019	1	0	1
Servers	Skype for Business Server Standard User CAL	2019	2042	0	2042
Servers	SQL - User CAL	2017	19	0	0
Servers	SQL - User CAL	2008 Release 2	15	0	0
Servers	SQL Server - Standard	2017	4	0	0
Servers	SQL Server - Standard	2008 Release 2	2	0	0
Servers	SQL Server Enterprise - 1 Processor	2008 Release 2	6	0	0
Servers	SQL Server Enterprise Core	2017	4	0	4

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Servers	SQL Server Standard - 1 Processor	2008 Release 2	4	0	0
Servers	SQL Server Standard Core	2017	46	0	46
Servers	SQL Server Standard Core	2012	28	0	0
Servers	System Center Configuration Manager Client ML	2019	2042	0	2042
Servers	System Center Endpoint Protection	2012 R2	2042	0	2042
Servers	Visio Online Plan 2		50	0	50
Servers	Windows Remote Desktop Services - Device CAL	2012	160	0	0
Servers	Windows Remote Desktop Services - Device CAL	2008	255	0	0

Servers	Windows Remote Desktop Services - User CAL	2019	1500	0	1500
Servers	Windows Remote Desktop Services - User CAL	2012	549	0	0
Servers	Windows Remote Desktop Services - User CAL	2008	1500	0	0
Servers	Windows Server - Device CAL	2008	868	0	0
Servers	Windows Server - Enterprise	2008 Release 2	35	0	0
Servers	Windows Server - Standard	2012 R2	32	0	26
Servers	Windows Server - Standard	2012	23	0	0
Servers	Windows Server - Standard	2008 Release 2	41	0	0

Servers	Windows Server - User CAL	2019	2042	0	2042
Servers	Windows Server - User CAL	2012	41	0	0
Servers	Windows Server - User CAL	2008	1500	0	0
Servers	Windows Server Datacenter - 2 Proc	2012 R2	22	0	22
Servers	Windows Server Standard Core	2016	64	0	0
Servers	Windows Web Server	2008 Release 2	1	0	0
Systems	Windows	8 Professional	0	1	0
Systems	Windows	7 Professional	0	6	0
Systems	Windows Per Device	10 Enterprise	0	141	0

Systems	Windows Per Device	10 Enterprise	0	1022	0

