

## Usage Analysis for mstore

This document describes the use of **mstore** by 4 educational organisations, one further education college and 3 secondary schools.

The 4 organisations had various levels of engagement with **mstore**:

- Organisation C (the FE college) is using **mstore** only for HR records
- Organisation H is using **mstore** in part, mainly for pupil/ex-pupil records with limited use in other departments
- Organisation M has embraced **mstore** across multiple departments and is using the solution for pupil/ex-pupil records, finance, HR and general administration
- Organisation S has undertaken a back-scanning project and is mainly using **mstore** as an archive for ex-pupils, with some limited archiving of finance and HR documents

Using raw data from the **mstore** history logs and overall counts of documents/pages stored, the following sections illustrate the value of the solution in terms of time savings (i.e. retrieval time) and document actions (i.e. prints and filing) saved.

**Time savings of up to £13,600/year**  
- average £7,250/year



Time savings are calculated as the time saved by avoiding a trip to retrieve a document from paper filing, along with the second trip to return the paper file to storage. This activity is assumed to take **approximately 2 minutes each time**. Using this assumption and the system records of document retrievals, the annual time saving is estimated in terms of total time and full-time equivalent staffing. This varies from the very low 27 hours for the archiving solution to over 33 weeks of time saving for organisation M. At an average annual full-time equivalent (FTE) cost of £20,000 this suggests that **organisation M is saving time equivalent to £13,600 per year**. This is a significant amount and shows the potential saving available to an organisation which fully embraces the solution and adopts **mstore** across the whole organisation.

**Direct cost savings of up to £6,800/year**  
– average £5,100/year<sup>1</sup>



Direct cost savings are based on avoiding the cost of typical filing operations. By filing “born digital” electronic documents directly to **mstore**, there is a saving in print costs. Use of electronic shared access can also avoid the need to make copies of documents when these are retrieved. There may still be occasional costs to printing documents from the system and these are reflected as costs against the system. However, there is also a saving available from sharing of documents electronically with other parties – avoiding the cost of

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<sup>1</sup> Excludes the school with archive-only system usage.

print, envelopes and postage. These figures are shown as annual savings based on the observed actions and present day pricing for print and materials. However, the calculations show that even with a relatively modest rate of external document transfer (e-mailing), mstore can show a significant saving by avoiding today's high postage costs when sharing documents with external organisations.

Return on investment of **8.5 months\***

Based on average staff and direct costs (£7,250 + £5,100 = £12,350) and standard system pricing, including maintenance (£7,750, £995 per annum), the initial system investment could be returned in 8.5 months.

#### **Average savings of £750/month**

Alternatively, under a subscription agreement of either £275/month (3 year term) or £250/month (5 year term), the solution could be making a saving of £750 per month from installation (based on the average savings of £12,350 per year divided by 12 months to give £1029 average savings, from which the solution price is then deducted).

## Summary Calculations

### Time Saving

The table below summarises the time savings due to immediate retrieval of documents from within the **mstore** solution, in comparison with retrieval of a physical file from a filing cabinet or similar storage. These estimates are based on retrieval of a file using a reference number and do not consider the additional benefits of flexible searching and content searching, which further increase the “findability” of documents within **mstore**

Organisation	Est. time saving/yr	Time saved as FTE <sup>2</sup>
C – FE college	54148 minutes = 902 hours = 24 weeks	0.50
H – Secondary	26652 minutes = 444 hours = 12 weeks	0.25
M – Secondary	73561 minutes = 1226 hours = 33 weeks	0.68
S – Secondary	1642 minutes = 27 hours = 0.7 weeks	0.02

If it is assumed that the cost of an administrative full-time worker is £20,000 (salary and costs of employment), then the average organisation would save the equivalent of approximately £7,250 per year (average of 0.36 FTE equivalent saving). If the outlying value for organisation S is removed, the average savings increase to £9,600/year or 0.48 FTE.

The above time saving calculations are based on the number of document retrievals (views) in an average year, with the following assumptions:

- 2 minutes per retrieval to extract a document from filing (with return)
- 37.5 hours per working week
- 48 weeks per year for a normal employee<sup>3</sup>

In the case where a document is retrieved more than once by the same user on the same day, this was treated as a single retrieval event. This means that the retrieval counts shown are likely to be slightly lower than the actual usage, as there are a number of cases where the same document is retrieved multiple times by the same user through a working day.

The calculations above do not take into account any time savings due to immediate resolution of issues (vs callbacks) and soft benefits from improved customer service (internal and external).

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<sup>2</sup> FTE = Full Time Equivalent. The annual time saved expressed in terms of individual full time staff.

<sup>3</sup> The calculations make an assumption of 48 working weeks per year. If this was to be modified to be based on 39 weeks (term time only), each time saving value would be 23% greater.

## Direct Cost Savings

The table below summarises the direct cost savings available by using mstore to avoid common tasks, such as the need to print a document “for the file” or to copy documents to read or take to meetings.

Organisation	Saving by storage	Saving at viewing	Cost from printing	Saving from e-mailing	Total annual saving
C	£416.98	£2,158.57	£21.69	£2,540.85	£5,094.72
H	£65.45	£3,287.15	£1.35	£137.77	£3,489.02
M	£398.03	£4,364.75	£49.45	£2,092.34	£6,805.67
S	£0.00	£781.02	£47.57	£7.84	£741.30

The average total annual saving is £4,032.68, although this is determined mainly by the scope of adoption of the solution. If organisation S is excluded, the average saving would be £5,129.80 per year.

The above savings are based on the following assumptions:

- Saving by storage is the direct saving of print costs by not printing-for-file when the document is originally digital (e.g. Word documents).
- Saving at views is the direct saving of print costs by not making a copy of the document when it is required for retrieval and usage (assumption that a copy would be made each time).
- The cost from printing is based on the total cost of printing from system statistics.
- The saving from e-mailing is based on the assumption that a document would otherwise be printed and posted to an external agency.
- Direct costs are at the following rates:
  - 0.57p per copy or print – based on 0.3p/mono, 3p colour and 10% colour
  - 0.4p per sheet of paper (A4) – based on bulk buy discount pricing
  - 2p per DL envelope – based on bulk buy discount pricing
  - 54p Second Class postage

The above calculations do not include any estimates of the value of system features such as document redaction (block out of sensitive information prior to release of a document to a 3<sup>rd</sup> party) which will further reduce time and cost in working processes.

## Organisation C – detailed metrics

The following shows the key usage metrics for mstore within organisation (C), a further education college with 10 sites.

Period of analysis

Year	2013	2014	2015
Complete months in data set	8	12	11
Active users (excluding system users)	17	26	20

Total documents and views (at end of reporting period)

Total system documents	30201
Total view events	52536
Average views per document	1.74
Current views per year	27074 (predicted full year 2015)
Average views per stored document/year	0.90

System activities by year

Activity	2013	2014	2015
Total view actions	6689	21029	24818
Views per month	836	1752	2256
Total export actions (e-mail)	1292	1105	3679
Exports per month	162	92	334
Total prints	94	316	209
Prints per month	12	26	19
Total new documents created	5328	8429	10266
New documents per month	666	702	933

Documents by file type

Type	# Docs	# Pages	Avg Pages	Prop. Docs	Avg Filesize
TIF	18813	312069	16.6	62.3%	239KB
PDF	1393	3817	2.7	4.6%	
Word	2543	20902 (calc)	8.2	8.4%	159KB
Excel	24	24 (calc)	1	0.1%	
MSG	7317	21951 (calc)	3	24.2%	
Other	111	111 (calc)	1	0.4%	
Totals	30201	358874			

The following assumptions were made:

- The number of pages in a Word document is assumed to be the weighted average of image (TIF/PDF) documents.
- The number of pages in an Excel document is assumed to be a 1, based on a single worksheet.
- The number of pages in an e-mail message is assumed to be 3 pages.
- The number of pages in other files (e.g. JPG) is assumed to be 1.

## Organisation H – detailed metrics

The following shows the key usage metrics for mstore within organisation (H), a secondary school.

Period of analysis

Year	2014	2015	2016
Complete months in data set	1	12	1
Active users (excluding system users)	15	32	24

Total documents and views (at end of reporting period)

Total system documents	14658
Total view events	15045
Average views per document	1.02
Current views per year	19494
Average views per stored document/year	1.33

System activities by year

Activity	2014	2015	2016
Total view actions	488	12336	2221
Views per month	488	1028	2221
Total export actions (e-mail)	11	133	20
Exports per month	11	11	20
Total prints	2	16	0
Prints per month	2	1	0
Total new documents created	219	9341	1659
New documents per month	219	778	1659

Documents by file type

Type	# Docs	# Pages	Avg Pages	Prop. Docs	Avg Filesize
TIF	13750	349832	25.5	93.8%	103KB
PDF	427	1561	3.7	2.9%	
Word	370	6432	17.4	2.5%	525KB
Excel	1	1	1	0.0%	
MSG	102	306	3	0.7%	
Other	8	8	1	0.1%	
Totals	14658	358140			

The following assumptions were made:

- The number of pages in a Word document is assumed to be the weighted average of image (TIF/PDF) documents.
- The number of pages in an Excel document is assumed to be a 1, based on a single worksheet.
- The number of pages in an e-mail message is assumed to be 3 pages.
- The number of pages in other files (e.g. JPG) is assumed to be 1.

## Organisation M – detailed metrics

The following shows the key usage metrics for mstore within organisation (H), a secondary school.

Period of analysis

Year	2012	2013	2014	2015
Complete months in data set	3	12	12	12
Active users (exc. system users)	12	14	13	15

Total documents and views (at end of reporting period)

Total system documents	62641
Total view events	110342
Average views per document	1.76
Average views per year (last 3 years)	36780
Average views per stored document/year	0.59

System activities by year

Activity	2012	2013	2014	2015
Total view actions	4001	36339	50420	23583
Views per month	1334	3028	4202	1965
Total export actions (e-mail)	1353	60955	30637	3083
Exports per month	451	5080	2553	257
Total prints	14	255	451	544
Prints per month	5	21	38	45
Total new documents created	18184	15822	14352	11707
New documents per month	6061	1319	1196	976

Documents by file type

Type	# Docs	# Pages	Avg Pages	Prop. Docs	Avg Filesize
TIF	44046	452904	10.3	70.3%	125KB
PDF	13268	248274	18.7	21.2%	
Word	3126	38243	12.2	5.0%	508KB
Excel	474	474	1	0.8%	
MSG	295	885	3	0.5%	
Other	1432	1432	1	2.3%	
Totals	62641	742212			

The following assumptions were made:

- The number of pages in a Word document is assumed to be the weighted average of image (TIF/PDF) documents.
- The number of pages in an Excel document is assumed to be a 1, based on a single worksheet.
- The number of pages in an e-mail message is assumed to be 3 pages.
- The number of pages in other files (e.g. JPG) is assumed to be 1.

## Organisation S – detailed metrics

The following shows the key usage metrics for mstore within organisation (H), a secondary school.

Period of analysis

Year	2015
Complete months in data set	12
Active users (exc. system users)	14

Total documents and views (at end of reporting period)

Total system documents	2733
Total view events	821
Average views per document	0.3
Current views per year	821
Average views per stored document/year	0.3

System activities by year

Activity	2015
Total view actions	821
Views per month	68
Total export actions (e-mail)	14
Exports per month	1
Total prints	50
Prints per month	4
Total new documents created	61
New documents per month	5

Documents by file type

Type	# Docs	# Pages	Avg Pages	Prop. Docs	Avg Filesize
TIF	2733	268033	98	100%	31KB
PDF	0	0	0	0%	
Word	0	0	0	0%	N/A
Excel	0	0	0	0%	
MSG	0	0	0	0%	
Other	0	0	0	0%	
Totals	2733	268033			

The following assumptions were made:

- The number of pages in a Word document is assumed to be the weighted average of image (TIF/PDF) documents.
- The number of pages in an Excel document is assumed to be a 1, based on a single worksheet.
- The number of pages in an e-mail message is assumed to be 3 pages.
- The number of pages in other files (e.g. JPG) is assumed to be 1.