

The COUNTER Code of Practice for e-Resources: Release 4

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Abstract

COUNTER provides an international, extendible Code of Practice for e-Resources that allows the usage of online information products and services to be measured in a credible, consistent and compatible way using vendor-generated data. Release 4 is an integrated Code of Practice covering journals, databases, books, reference works and multimedia content. It replaces both Release 3 of the Code of Practice for Journals and Databases and Release 1 of the Code of Practice for Books and Reference Works. The **deadline date for implementation of Release 4 is 31 December 2013**. After this date only those vendors compliant with Release 4 will be considered to be COUNTER compliant; vendors are encouraged to implement Release 4 before that date. Before 31 December 2013, only vendors compliant with the new Release 4, or vendors compliant with Release 3 for Journals and Databases or Release 1 for Books and Reference Works will be considered to be COUNTER-compliant.

Release 4 contains the following new features:

- A single, integrated Code of Practice covering journals, databases, books, reference works and multimedia content
- An expanded list of Definitions, including terms such as 'gold open access', 'multimedia full content unit', 'record view', 'result click', as well as different categories of 'access denied', etc. that are used for the first time in Release 4
- Enhancements of the SUSHI (**Standardised Usage Statistics Harvesting Initiative**) protocol designed to facilitate its implementation by vendors and its use by librarians
- A requirement that Tab-Separated Values must be provided instead of Comma-Separated Values
- A requirement that Journal DOI and Book DOI be included in the usage reports, to facilitate not only the management of usage data, but also the linking of usage data to other data relevant to collections of online content.
- A requirement to report usage of Gold Open Access articles separately in a new report: Journal Report 1 GOA: Number of Successful Gold Open Access Full-text Article Requests by Month and Journal.
- An expanded Journal Report 2, which now includes 'access denied: content item not licenced', in addition to the 'Turnaways' (access denied: simultaneous/concurrent user licence limit exceeded) covered in earlier Releases.
- A modified Journal Report 5, which reports usage by year-of-publication and allows customers to calculate usage of archival packages, is now a required report. Vendors are not required to provide this report to every customer every month, but they must have the capability to provide Journal Report 5 to customers on demand.
- Modified Database Reports, in which the previous requirement to report Session counts has been dropped, and new requirements, to report Record Views and Result Clicks, have been added. (Database Report 3 has also been renamed Platform Report 1).
- A requirement, in Book Report 2, that the type of Section covered in the report by a particular vendor be defined
- Removal of Book Report 6: Total Searches and Sessions by Month and Service, which is replaced by Platform Report 1.
- A new report, Multimedia Report 1, which covers the usage of non-textual multimedia resources, such as audio, video and images, by reporting the number of successful requests for multimedia full content units
- New reports covering usage on mobile devices
- A description of the relative advantages of logfiles and page tags as the basis for counting online usage
- Flexibility in the usage reporting period that allows customers to specify a date range for their usage reports

Table of Contents

1. General Information.....	Page 3
2. Definitions of terms used.....	Page 4
3. SUSHI.....	Page 4
4. Usage Reports.....	Page 5
4.1. Example Usage Reports	
4.1.1. Journals	Page 7
4.1.2. Databases.....	Page 13
4.1.3. Books and Reference Works.....	Page 16
4.1.4. Multimedia.....	Page 21
4.1.5. Reports for a Library Consortium.....	Page 22
5. Data processing.....	Page 24
6. Auditing.....	Page 27
7. Compliance.....	Page 28
8. Maintenance and development of the Code of Practice.....	Page 29
9. Appendices.....	Page 29
A. Glossary of Terms relevant to COUNTER	
B. Vendor Declaration of COUNTER Compliance	
C. SUSHI	
D. Guidelines for implementation	
E. Auditing requirements and tests	
F. Excel usage reports examples	
G. XML overview, with links to the up to date schemas	
H. Optional Additional Usage reports	
I. List of federated and automated search engines	
J. List of internet robots, crawlers, spiders, etc.	

Note: Sections 2, 3, 4, and 5 contain the core information required for implementation of Release 4 of the COUNTER Code of Practice.

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1. General Information

COUNTER (Counting Online Usage of NeTworked Electronic Resources) was formally established in March 2002. Release 1 of the COUNTER Code of Practice for Journals and Databases was launched in December 2002. COUNTER serves librarians, vendors, intermediaries and others by facilitating the recording and exchange of online usage statistics. The COUNTER Code of Practice provides guidance on data elements to be measured, definitions of these data elements, output report content and format, as well as on data processing and auditing. To have their usage statistics and reports designated COUNTER-compliant vendors must provide usage statistics that conform to the Code of Practice.

1.1 Purpose

The purpose of the COUNTER Code of Practice is to facilitate the recording, exchange and interpretation of online usage data by establishing open, international standards and protocols for the provision of vendor-generated usage statistics that are consistent, credible and compatible.

1.2 Scope

This COUNTER Code of Practice provides a framework for the recording and exchange of online usage statistics for the major categories of e-resources (journals, databases, books, reference works, multimedia databases) at an international level. In doing so, it covers the following areas: data elements to be measured; definitions of these data elements; content and format of usage reports; requirements for data processing; requirements for auditing; guidelines to avoid duplicate counting when intermediary gateways and aggregators are used.

1.3 Application

COUNTER is designed for librarians, vendors, intermediaries and others who require reliable online usage statistics. The guidelines provided by this Code of Practice enable librarians to compare statistics from different vendors, to make better-informed purchasing decisions, and to plan infrastructure more effectively. COUNTER also provides vendors/intermediaries with the detailed specifications they need to generate data in a format useful to customers, to compare the relative usage of different delivery channels, and to learn more about online usage patterns. COUNTER also provides guidance to others interested in information about online usage statistics.

1.4 Strategy

COUNTER provides an open Code of Practice that evolves in response to the demands of the international librarian, publishing and intermediary communities. The Code of Practice is kept continually under review; feedback on its scope and application are actively sought from all interested parties. See Section 8 below.

1.5 Governance

The COUNTER Code of Practice is owned and developed by Counter Online Metrics, a not-for-profit company registered in England. Counter Online Metrics is governed by a Board of Directors. An Executive Committee reports to the Board, and the day-to-day management of COUNTER is the responsibility of the Project Director.

1.6 Definitions

This Code of Practice provides definitions of data elements and other terms that are relevant, not only to the usage reports specified in Release 4, but also to other reports that vendors may wish to generate. Every effort has been made to use existing ISO, NISO, etc. definitions where appropriate, and these sources are cited. See Appendix A.

1.7 Versions

The COUNTER Code of Practice will be extended and upgraded as necessary on the basis of input from the communities it serves. Each new version will be made available as a numbered Release on the COUNTER website; users will be alerted to its availability. Release 4 of the Code of Practice replaces both Release 3 of the Code of Practice for Journals and Databases and Release 1 of the Code of Practice for Books and Reference Works. The deadline date for implementation of

this Release is **31 December 2013**. After this date only those vendors compliant with Release 4 will be considered to be COUNTER compliant.

1.8 Auditing and COUNTER compliance

An independent annual audit is required of each vendor's reports and processes to certify that they are COUNTER compliant. The auditing process is designed to be simple, straightforward and not to be unduly burdensome or costly to the vendor, while providing reassurance to customers of the reliability of the COUNTER usage data. See Section 6 below and Appendix E for more details.

1.9 Relationship to other standards, protocols and codes

The COUNTER Codes of Practice builds on a number of existing industry initiatives and standards that address vendor-based network performance measures. Where appropriate, definitions of data elements and other terms from these sources have been used in this Code of Practice, and these are identified in Appendix A.

1.10 Making comments on the Code of Practice

The COUNTER Executive Committee welcomes comments on the Code of Practice. See Section 8 below.

2. Definitions of terms used

Appendix A lists the terms relevant to Release 4 of the Code of Practice and provides a definition of each term, along with examples where appropriate. In order to be designated compliant with the COUNTER Code of Practice, vendors must adhere to the definitions provided in Appendix A.

3. SUSHI

The advent of the SUSHI (Standardized Usage Statistics Harvesting Initiative) protocol (<http://www.niso.org/workrooms/sushi/>) has greatly facilitated the handling of large volumes of usage data, and its implementation by vendors allows the automated retrieval of the COUNTER usage reports into local systems, making this process much less time consuming for the librarian or library consortium administrator.

For this reason, in addition to providing the usage reports specified below (as a Microsoft Excel file, as a Tab-separated Value (TSV) file, or as a file that can be easily imported into Microsoft Excel) COUNTER usage reports **must** also be provided in XML format in accordance with the COUNTER XML schema that is specified by SUSHI and may be found on the NISO/SUSHI website at: <http://www.niso.org/schemas/sushi/>. The COUNTER schema covers **all** the usage reports listed in Section 4 below. COUNTER reports in XML must be downloadable using the SUSHI protocol.

COUNTER and NISO partner with other organizations to provide tools that facilitate the implementation of the COUNTER standards. COUNTER also encourages the development of Open Source tools, such as the SUSHI Harvester for Consortia (<http://www.niso.org/workrooms/sushi/tools/#harvester>). Further information on these tools may be found on the NISO/SUSHI website.

3.1 SUSHI Server Response Times

A SUSHI Server must respond to the SUSHI Request from a client within 120 seconds. SUSHI Servers that are unable to consistently deliver a completed usage report within this timeframe should adopt an architecture that allows for background processing of usage data – the server can respond to the initial request with a “Server Busy” exception while queuing the request for background processing. Since most SUSHI clients will wait minutes or hours before retrying the request, the report will be ready to be delivered on the subsequent request.

3.2 Further information on SUSHI

Further information on SUSHI is available in Appendix C of this Code of Practice

Comprehensive information on SUSHI is also available on the NISO/SUSHI website (<http://www.niso.org/workrooms/sushi/>). As well as full documentation on the standard itself, the SUSHI website provides:

- Information on Getting Started
- SUSHI Tools
- SUSHI Schemas
- SUSHI Reports Registry
- SUSHI Server Registry
- SUSHI Developers List
- SUSHI FAQs

4. Usage Reports

This section lists the COUNTER Usage Reports; it also specifies the content, format and delivery specifications that these reports must meet to be designated 'COUNTER-Compliant'. For each compliant product vendors must supply the relevant COUNTER-compliant usage reports at no additional charge to customers.

Customers may specify the start and end month of data to be reported in the COUNTER Reports. To enable customers to do this, vendors must have a pool of at least 24 months of usage data available, and a COUNTER Report must be capable of displaying at least 12 months of usage data, if this is requested by the customer. If no start or end month is specified by a customer, the default reporting period is the Current Calendar Year-to-Date. (Newly COUNTER-compliant vendors may not have 24 months of COUNTER compliant usage data available, in which case they must make available as many months' usage data as they have until they have 24 months of usage data)

Table 1: List of COUNTER Usage Reports

Report	Description	Status
Journal Report 1	Number of Successful Full-Text Article Requests by Month and Journal	Standard
Journal Report 1 GOA	Number of Successful Gold Open Access Full-Text Article Requests by Month and Journal	Standard
Journal Report 1a	Number of Successful Full-Text Article Requests from an Archive by Month and Journal	Optional (See Appendix H)
Journal Report 2	Access Denied to Full-Text Articles by Month, Journal and Category	Standard
Journal Report 3	Number of Successful Item Requests by Month, Journal and Page-type	Optional (See Appendix H)
Journal Report 3 Mobile	Number of Successful Item Requests by Month, Journal and Page-type for usage on a mobile device	Optional (See Appendix H)
Journal Report 4	Total Searches Run By Month and Collection	Optional (See Appendix H)
Journal Report 5	Number of Successful Full-Text Article Requests by Year-of-Publication (YOP) and Journal	Standard
Database Report 1	Total Searches, Result Clicks and Record Views by Month and Database	Standard
Database Report 2	Access Denied by Month, Database and Category	Standard
Platform Report 1 (formerly Database Report 3)	Total Searches, Result Clicks and Record Views by Month and Platform	Standard
Book Report 1	Number of Successful Title Requests by Month and Title	Standard
Book Report 2	Number of Successful Section Requests by Month and Title	Standard

Book Report 3	Access Denied to Content Items by Month, Title and Category	Standard
Book Report 4	Access Denied to Content items by Month, Platform and Category	Standard
Book Report 5	Total Searches by Month and Title	Standard
Multimedia Report 1	Number of Successful Full Multimedia Content Unit Requests by Month and Collection	Standard
Multimedia Report 2	Number of Successful Full Multimedia Content Unit Requests by Month, Collection and Item Type	Optional (See Appendix H)
Title Report 1 (formerly Journal/Book Report 1)	Number of Successful Requests for Journal Full-Text Articles and Book Sections by Month and Title	Optional (See Appendix H)
Title Report 1 Mobile	Number of Successful Requests for Journal Full-Text Articles and Book Sections by Month and Title (formatted for normal browsers/delivered to mobile devices AND formatted for mobile devices/delivered to mobile devices)	Optional (See Appendix H)
Title Report 2	Access Denied to Full-Text Items by Month, Title and Category	Optional (See Appendix H)
Title Report 3	Number of Successful Item Requests by Month, Title and Page Type	Optional (See Appendix H)
Title Report 3 Mobile	Number of Successful Item Requests by Month, Title and Page Type (formatted for normal browsers/delivered to mobile devices AND formatted for mobile devices/delivered to mobile devices)	Optional (See Appendix H)

Note: The Usage Reports categorised as **Standard** in Table 1 above are those reports that vendors must provide (depending on the types of content covered) in order to be COUNTER compliant. **Optional** reports are not required for COUNTER-compliance, but are designed to enable more detailed usage reporting, where vendors have the capability to do this.

4.1 Example usage reports

Examples are provided below of the COUNTER usage reports, in separate sections for Journals, Databases, Books and Reference Works, and for Multimedia content. While these examples are in Excel format, (See Section 4.3 below for other report delivery options), primarily for visualisation purposes, all COUNTER usage reports **must** be available in XML, irrespective of other formats provided. Reports must comply exactly with the formats specified in order to be COUNTER compliant.

In all the usage reports listed below the Reporting Period Total column has been moved from the column at right-hand side of the report, which it occupied in previous Releases, to a column on the left-hand side of the monthly data columns. This move has been made to ensure that the Reporting Period Total column is at a fixed place in each report, irrespective of the number of months of data being reported. This facilitates the automated harvesting and processing of the usage reports.

The majority of the Excel examples provided below show usage data for the months of January, February and March. This limited range of months has been selected simply to allow the reports to be displayed clearly on the page within this document. In reality the usage reports will show columns for every month during the Reporting Period, to the end month selected. Where the end month selected is in the future, the relevant columns should be shown with no data in the cells

4.1.1 Journals

Journal Report 1: Number of Successful Full-Text Article Requests by Month and Journal

Journal	Publisher	Platform	Journal DOI	Proprietary Identifier	Print ISSN	Online ISSN	Reporting Period Total	Reporting Period HTML	Reporting Period PDF	Jan-2011	Feb-2011	Mar-2011
Total for all journals		Platform Z					4449	1566	2733	2223	1285	941
Journal of AA	Publisher X	Platform Z			1212-3131	3225-3123	1363	601	732	432	376	555
Journal of BB	Publisher X	Platform Z			9821-3361	2312-8751	1312	548	651	625	687	0
Journal of CC	Publisher Y	Platform Z			2464-2121	0154-1521	1717	403	1310	1109	222	386
Journal of DD	Publisher Y	Platform Z			5355-5444	0165-5542	57	14	40	57	0	0

Note:

- Neither books nor book series may be included in Journal Report 1.
- For 'Customer' specify, for example, the organizational level to which the usage reports refer: e.g. 'NorthEast Research Libraries Consortium', 'Yale University'
- the 'Total for all journals' line is provided at the top of the Table to allow it to be stripped out without disrupting the rest of the Table, as the number of journals included may vary from one month to another.
- 'Institutional Identifier' is an optional field until the standard for this identifier, being developed by the NISO Institutional Identifiers Working Group, is available for implementation.
- A Journal DOI is required for each journal listed. This should be provided simply as an identifier value. (If a Journal DOI is not available the cell must be left blank).
- The Proprietary Identifier column must always be included, but cells may be left blank where the vendor has no Proprietary Identifier for a journal.
- The hyphen within the Print and Online ISSNs must be included, as indicated in the example above.
- Journals for which the number of full-text article requests is zero in every month should be included in Journal Report 1, except where an aggregator or gateway is responsible for recording and reporting the usage (see Section 7 below).
- The Reporting Period Total will not necessarily be the sum of the Reporting Period HTML and Reporting Period PDF columns, as full-text articles may be available in formats other than PDF and HTML.
- Vendors that provide online journals and books on the same platform may report usage of both categories of product in a single optional additional COUNTER report: Title Report 1: Number of successful full-text item requests by month and title. This report may be found in Appendix H to this Code of Practice.

Data Display Rules

Vendors must adhere to the Data Display Rules specified below. While these rules apply specifically to Journal Report 1, they also illustrate the rules that should be followed for the other reports listed in this Code of Practice.

Journal Report 1: Display Rules

General Notes:

Background cell colour is optional for all cells. No cell should contain commas or tab characters.

These rules apply to both Excel and TSV (Tab-Separated Value) formats of JR1. The notation used refers to cells using standard Excel notation, with cell "B6" meaning the cell in the second column and at the 6th row. In TSV, this would refer to the 2nd field position on the 6th row of the file.

There must be a column for every month that falls within the Reporting Period covered by the report. Where recorded usage is zero in a given month '0' must be included in the relevant cells. Where usage has not yet been recorded for a given month the relevant cells must be left blank.

Display/Formatting Rules:

1. **Cell A1** contains the text "Journal Report 1(R4)"
2. **Cell B1** contains the text "Number of Successful Full-text Article Requests by Month and Journal"
3. **Cell A2** contains the "Customer" as defined in Appendix A (e.g. "NorthEast Research Library Consortium" or "Yale University")
4. **Cell A3** contains the "Institutional Identifier" as defined in Appendix A, but may be left blank if the vendor does not use Institutional Identifiers
5. **Cell A4** contains the text "Period covered by Report"
6. **Cell A5** contains the dates that encompass the Period covered by Report in yyyy-mm-dd format. For example a report covering the Period 1 April 2011-30 September 2011 would show 2011-04-01 to 2011-09-30.
7. **Cell A6** contains the text "Date run"
8. **Cell A7** contains the date that the report was run in yyyy-mm-dd format. For example, a report run on 12 February 2011 would show 2011-02-12.
9. **Cell A8** contains the text "Journal"
10. **Cell B8** contains the text "Publisher"
11. **Cell C8** contains the text "Platform"
12. **Cell D8** contains the text "Journal DOI"
13. **Cell E8** contains the text "Proprietary Identifier"
14. **Cell F8** contains the text "Print ISSN"
15. **Cell G8** contains the text "Online ISSN"
16. **Cell H8** contains the text "Reporting Period Total"

17. **Cell I8** contains the text "Reporting Period HTML"
18. **Cell J8** contains the text "Reporting Period PDF".
19. **Cell K8** contains the month and year of the first month of data in this report in Mmm-yyyy format. Thus for January 2011, this cell will contain "Jan-2011"
20. **Cell A9** contains the text "Total for all journals"
21. **Cell B9** contains the name of the publisher/vendor, provided all the journals listed in column A are from the same publisher/vendor. If not, this cell is left blank.
22. **Cell C9** contains the name of the platform
23. **Cells D9, E9, F9 and G9** are blank
24. **Cell A10** down to **Cell A[n]** contains the name of each journal
25. **Cell B10** down to **Cell B[n]** contains the name of the publisher of each journal
26. **Cell C10** down to **Cell C[n]** contains the name of the platform on which each journal is published
27. **Cell D10** down to **Cell D[n]** contains the Journal DOI
28. **Cell E10** down to **Cell E[n]** contains the Proprietary Identifier, where available
29. **Cell F10** down to **Cell F[n]** contains the Print ISSN
30. **Cell G10** down to **Cell G[n]** contains the Online ISSN
31. **Cell H10** down to **Cell H[n]** contains the number of Full Text Requests Total for the Reporting Period - i.e. the sum of Full Text Requests Total for Jan, Feb etc up to and including the last reported month.
32. **Cell I10** down to **Cell I[n]** contains the number of Full Text HTML Requests Total for the Reporting Period.
33. **Cell J10** down to **Cell J[n]** contains the number of Full Text Requests PDF for the Reporting Period.
34. **Cell K10** down to **Cell K[n]** contains the number of Full Text Requests for that journal in the corresponding month
35. Similarly, **Cell L10** down to **Cell L[n]**, **Cell M10** down to **Cell M[n]** etc contain the Full Text Requests for the corresponding months
36. **Cell H9 and Cell K9** across to **Cell M7** (or whatever column corresponds to the last column of the table) gives totals for each column. The figure reported in these cells in Row 9 must equal the sum of the cells for that column from Row 10 to the bottom of the table.

Note About HTML and PDF Totals:

The sum of (Reporting Period HTML) + (Reporting Period PDF) may give a different total to the (Reporting Period TOTAL) depending on the formats available, because other formats such as PostScript may be included in the (Reporting Period TOTAL) figure, but Publishers/Vendors should NOT include additional columns for these additional formats. Only HTML, PDF and TOTAL are required.

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the terms used, See Appendix A.

The XML Schema for Journal Report 1 is at: <http://www.niso.org/schemas/sushi/#counter>

Journal Report 1 GOA: Number of Successful Gold Open Access Full-text Article Requests by Month and Journal

Journal	Publisher	Platform	Journal DOI	Proprietary Identifier	Print ISSN	Online ISSN	Reporting Period Total	Reporting Period HTML	Reporting Period PDF	Jan-2011	Feb-2011	Mar-2011
Total for all journals							426	153	248	210	125	91
Journal of AA	Publisher X	Platform Z			1212-3131	3225-3123	123	61	72	32	36	55
Journal of BB	Publisher X	Platform Z			9821-3361	2312-8751	129	48	61	62	67	0
Journal of CC	Publisher Y	Platform Z			2464-2121	0154-1521	167	40	111	109	22	36
Journal of DD	Publisher Y	Platform Z			5355-5444	0165-5542	7	4	4	7	0	0

- Usage reported in JR1 GOA must also be included in JR1, which reports **all** usage of full-text articles, including usage of Gold Open Access articles
- Neither books nor book series may be included in Journal Report 1 GOA.
- For 'Customer' specify, for example, the organizational level to which the usage reports refer: e.g. 'NorthEast Research Libraries Consortium', 'Yale University'
- the 'Total for all journals' line is provided at the top of the Table to allow it to be stripped out without disrupting the rest of the Table, as the number of journals included may vary from one month to another.
- 'Institutional Identifier' is an optional field until the standard for this identifier being developed by the NISO Institutional Identifiers Working Group is available for implementation.
- A Journal DOI is required for each journal listed. This should be provided simply as an identifier value. (If a Journal DOI is not available the cell must be left blank).
- The Proprietary Identifier column must be included, but cells may be left blank where the vendor has no Proprietary Identifier for a journal
- The hyphen within the ISSNs must be included, as indicated in the example above.
- Journals for which the number of full-text article requests is zero in every month should be included in Journal Report 1, except where an aggregator or gateway is responsible for recording and reporting the usage (see Section 7 below).
- The Reporting Period Total will not necessarily be the sum of the Reporting Period HTML and Reporting Period PDF columns, as full-text articles may be available in formats other than PDF and HTML.
- Vendors that provide online journals and books on the same platform may report usage of both categories of product in a single optional additional COUNTER report: Title Report 1: Number of

successful full-text item requests by month and title. This report may be found in Appendix G to this Code of Practice.

12. For guidance on Data Display Rules, see Journal Report 1

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the terms used, see Appendix A.

The XML Schema for Journal Report 1 GOA is at: <http://www.niso.org/schemas/sushi/#counter>

Journal Report 2: Access Denied to Full-Text Articles by Month, Journal and Category

Journal	Publisher	Platform	Journal DOI	Proprietary Identifier	Print ISSN	Online ISSN	Access Denied Category	Reporting Period Total	Jan-2011	Feb-2011	Mar-2011
Access Denied to Full-text Articles by Month, Journal and Category											
Journal Report 2 (R4)											
<Customer>											
<Institutional Identifier>											
Period covered by Report:											
yyyy-mm-dd to yyyy-mm-dd											
Date run:											
yyyy-mm-dd											
Total for all journals	Publisher X	Platform Z					Access denied: concurrent/simultaneous user licence limit exceeded	156	47	45	64
Total for all journals	Publisher X	Platform Z					Access denied: content item not licenced	1110	369	289	452
Journal of AA	Publisher X	Platform Z			1212-3131	3225-3123	Access denied: concurrent/simultaneous user licence limit exceeded	105	35	27	43
Journal of AA	Publisher X	Platform Z			1212-3131	3225-3123	Access denied: content item not licenced	407	143	88	176
Journal of BB	Publisher Y	Platform Z			9821-3361	2312-8751	Access denied: concurrent/simultaneous user licence limit exceeded	51	12	18	21
Journal of BB	Publisher Y	Platform Z			9821-3361	2312-8751	Access denied: content item not licenced	703	226	201	276

Note:

- Neither books nor book series may be included in Journal Report 2.
- For criteria specify, for example, the organizational level to which the usage reports refer: e.g. 'NorthEast Research Libraries Consortium', 'Yale University'
- 'Institutional Identifier' is an optional field until the standard for this identifier being developed by the NISO Institutional Identifiers Working Group is available for implementation.
- The Proprietary Identifier column must always be included, but cells may be left blank where the vendor has no Proprietary Identifier for a journal
- A journal DOI is required for each journal listed. This should be provided simply as an identifier value. (If a Journal DOI is not available the cell must be left blank).
- The hyphen within the ISSNs should be included, as indicated in the example above.
- 'Access denied: content item not licenced' should be reported when the user has been denied access to a content item because the user or the user's institution does not have access rights under an agreement with the vendor. Examples of the type of event that should trigger the recording of this category of Access Denied are: Redirect user to another URL (e.g. to a credit card payment page); Return Code 403, Forbidden; Customer error page.
- For guidance on Data Display Rules, see Journal Report 1

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the terms used, see Appendix A.

The XML Schema for Journal Report 2 is at: <http://www.niso.org/schemas/sushi/#counter>

Note: Journal Report 1a, Journal Report 3, Journal Report 3 Mobile and Journal Report 4 are optional additional reports that may be found in Appendix H of this Code of Practice.

Journal Report 5: Number of Successful Full-Text Article Requests by Year-of-Publication (YOP) and Journal

Journal	Publisher	Platform	Journal DOI	Proprietary Identifier	Print ISSN	Online ISSN	Articles in Press	YOP 2012	YOP 2011	YOP 2010	YOP 2000	YOP Pre-2000	YOP unknown
Total for all journals							107	5287	9413	6955		1422	4177	1487
Journal of AA	Publisher X	Platform Z			1212-3131	3225-3123	32	1335	2765	1801		362	1091	324
Journal of BB	Publisher X	Platform Z			9821-3361	2312-8751	51	2981	5077	3891		765	2316	653
Journal of CC	Publisher Y	Platform Z			2464-2121	0154-1521	16	882	1398	1111		216	668	438
Journal of DD	Publisher Y	Platform Z			5355-5444	0165-5542	8	89	173	152		79	102	72

Note:

1. The purpose of this report is to enable customers to distinguish usage of separately acquired archives within the total usage reported in Journal Report 1. The range of years reported in Journal Report 5 must, therefore, enable them to do this. The years and YOP-ranges used in Row 8 of Journal Report 5 may be modified, but vendors must provide each YOP in the current decade and in the immediately previous decade as separate columns. All YOPs prior to these two decades may, as a minimum, be reported in a single column unless there is a boundary between current files and backfiles during this period, in which case two columns, one for current files and one for backfiles, must be provided. Vendors are encouraged, where they have the capability to do so, to report all YOPs in separate columns.
2. Vendors are not required to provide Journal Report 5 every month. Rather, vendors are required to have the capability to provide Journal Report 5 to customers on demand.
3. Vendors providing Journal Report 5 must also continue to report all usage for journals in Journal Report 1, notwithstanding their inclusion in Journal Report 5.
4. Neither books nor book series may be included in Journal Report 5
5. For 'Customer' specify, for example, the organizational level to which the usage reports refer: e.g. 'NorthEast Research Libraries Consortium', 'Yale University'
6. Articles in Press are full-text articles that have been accepted for publication in a journal, and which have been made available online by the publisher, and which will be assigned a publication date of the current year or a future year.
7. YOP = Year of Publication
8. 'Institutional Identifier' is an optional field until the standard for this identifier being developed by the NISO Institutional Identifiers Working Group is available for implementation.
9. A Journal DOI is required for each journal listed. This should be provided simply as an identifier value. (If a Journal DOI is not available the cell must be left blank).
10. The Proprietary Identifier column must be included, but cells may be left blank where the vendor has no Proprietary Identifier for a journal

11. The hyphen within the ISSNs should be included, as indicated in the example above.
12. YOP Unknown covers full-text articles (usually older articles) that have been formally published in a journal, but to which no Year of Publication has been allocated. This category of articles must not include Articles in Press unless they cannot be distinguished from other articles without a YOP.
13. For guidance on Data Display Rules, see Journal Report 1

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the terms used, see Appendix A.

The XML Schema for Journal Report 5 is at: <http://www.niso.org/schemas/sushi/#counter>

4.1.2 Databases

Database Report 1: Total Searches, Result Clicks and Record Views by Month and Database

Database	Publisher	Platform	User Activity	Reporting Period Total	Jan-2011	Feb-2011	Mar-2011
Database AA	Publisher X	Platform Z	Regular Searches	7814	2543	2267	3004
Database AA	Publisher X	Platform Z	Searches-federated and automated	4889	1689	1589	1611
Database AA	Publisher X	Platform Z	Result Clicks	12745	4022	3392	5331
Database AA	Publisher X	Platform Z	Record Views	9585	3032	2777	3776
Database BB	Publisher Y	Platform Z	Regular Searches	3478	1098	1066	1314
Database BB	Publisher Y	Platform Z	Searches-federated and automated	2613	887	814	912
Database BB	Publisher Y	Platform Z	Result Clicks	5350	1776	1759	1815
Database BB	Publisher Y	Platform Z	Record Views	3595	1215	1066	1314

Note:

1. For 'Customer' specify, for example, the organizational level to which the usage reports refer: e.g. 'NorthEast Research Libraries Consortium', 'Yale University'
2. 'Institutional Identifier' is an optional field until the standard for this identifier being developed by the NISO Institutional Identifiers Working Group is available for implementation.
3. Search activity generated by federated search engines and automated search agents should be categorized separately from regular searches. Any searches derived from any federated search engine or automated search agent) should be included in separate "Searches_federated and automated" counts as indicated in the above report and are not to be included in the "Regular Searches" counts. (See relevant protocol in Section 5 below)
4. For guidance on Data Display Rules, see Journal Report 1

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the terms used, see Appendix A.

The XML Schema for Database Report 1 is at: <http://www.niso.org/schemas/sushi/#counter>

Database Report 2: Access Denied by Month, Database and Category

Database	Publisher	Platform	Access denied category	Reporting Period Total	Jan-2011	Feb-2011	Mar-2011
Total for all databases				0	0	0	0
Total for all databases				1821	594	454	773
Database AA	Publisher X	Platform Z	Access denied: concurrent/simultaneous user licence limit exceeded	0	0	0	0
Database AA	Publisher X	Platform Z	Access denied: content item not licenced	1099	381	287	431
Database BB	Publisher Y	Platform Z	Access denied: concurrent/simultaneous user licence limit exceeded	0	0	0	0
Database BB	Publisher X	Platform Z	Access denied: content item not licenced	722	213	167	342

Note:

- For 'Customer' specify, for example, the organizational level to which the usage reports refer: e.g. 'NorthEast Research Libraries Consortium', 'Yale University'
- 'Institutional Identifier' is an optional field until the standard for this identifier being developed by the NISO Institutional Identifiers Working Group is available for implementation.
- 'Access denied: content item not licenced' should be reported when the user has been denied access to a content item because the user or the user's institution does not have access rights under an agreement with the vendor. Examples of the type of event that should trigger the recording of this category of Access Denied are: Return Code 403, Forbidden; Redirect user to another URL; Customer error page.
- For guidance on Data Display Rules, see Journal Report 1

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the terms used, see Appendix A.

The XML Schema for Database Report 2 is at: <http://www.niso.org/schemas/sushi/#counter>

Platform Report 1: Total Searches, Result Clicks and Record Views by Month and Platform (Replaces Database Report 3)

Platform	Publisher	User Activity	Reporting Period Total	Jan-2011	Feb-2011	Mar-2011
Platform Z	Publisher A	Regular Searches	56197	16567	18643	20987
Platform Z	Publisher A	Searches-federated and automated	201185	56037	68945	76203
Platform Z	Publisher A	Result Clicks	98222	32009	41226	24987
Platform Z	Publisher A	Record Views	106450	21999	28443	56008
Platform Z	Publisher B	Regular Searches	11827	2099	4296	5432
Platform Z	Publisher B	Searches-federated and automated	33261	6197	12988	14076
Platform Z	Publisher B	Result Clicks	10870	3117	4432	3321
Platform Z	Publisher B	Record Views	10515	2332	3117	5066

Note:

1. For 'Customer' specify, for example, the organizational level to which the usage reports refer: e.g. 'NorthEast Research Libraries Consortium', 'Yale University'
2. 'Institutional Identifier' is an optional field until the standard for this identifier being developed by the NISO Institutional Identifiers Working Group is available for implementation.
3. Search activity generated by federated search engines and other automated search agents should be categorized separately from regular searches. Any searches derived from any federated search engine (or similar automated search agent) should be included in separate "Searches_federated and automated" counts as indicated in the above report and are not to be included in the "Regular Searches" counts. (See relevant protocol in Section 5 below)
4. For guidance on Data Display Rules, see Journal Report 1

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the terms used, see Appendix A.

The XML Schema for Platform Report 1 is at: <http://www.niso.org/schemas/sushi/#counter>

4.1.3 Books and Reference Works

Book Report 1: Number of Successful Title Requests by Month and Title
 (To be provided *only* when an entire book is provided as a single file; otherwise Book Report 2 below must be used)

	Publisher	Platform	Book DOI	Proprietary Identifier	ISBN	ISSN	Reporting Period Total	Jan-2011	Feb-2011	Mar-2011
Total for all titles							772	245	233	294
Title AA	Publisher X	Platform Z			9-780901-690224		173	45	42	86
Title BB	Publisher X	Platform Z			9-780901-691539	2312-8751	362	118	101	143
Title CC	Publisher Y	Platform Z			9-785411-692567		41	15	4	22
Title DD	Publisher Y	Platform Z			9-785411-693446	0165-5542	196	67	86	43

Note:

1. For 'Customer' specify, for example, the organizational level to which the usage reports refer: e.g. 'Harvard University', 'Department of Chemistry'
2. 'Institutional Identifier' is an optional field until the standard for this identifier being developed by the NISO Institutional Identifiers Working Group is available for implementation.
3. A Book DOI is required for every title on the list. This should be provided simply as an identifier value. (If a Book DOI is not available the cell must be left blank).
4. The Proprietary Identifier column must be included, but cells may be left blank if the vendor has no Proprietary Identifier for a journal
5. The 'Total for all titles' line is provided at the top of the Table to allow it to be stripped out without disrupting the rest of the Table, as the number of books included may vary from one month to another.
6. Books for which the number of title requests is zero in every month should **not** be included in Book Report 1.
7. For guidance on Data Display Rules, see Journal Report 1

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the terms used, see Appendix A.

The XML Schema for Book Report 1 is at: <http://www.niso.org/schemas/sushi/#counter>

Book Report 2: Number of Successful Section** Requests by Month and Title

	A	B	C	D	E	F	G	H	I	J	K	L
1	Book Report 2 (R4)	Number of Successful Section Requests by Month and Title										
2	<Customer>	Section Type:										
3	<Institutional Identifier>	<Chapter, etc.>										
4	Period covered by Report:											
5	yyyy-mm-dd to yyyy-mm-dd											
6	Date run:											
7	yyyy-mm-dd											
8		Publisher	Platform	Book DOI	Proprietary Identifier	ISBN	ISSN	Reporting Period Total	Jan-2011	Feb-2011	Mar-2011	
9	Total for all titles							998	361	348	289	
10	Title AA	Publisher X	Platform Z			9-787543-690548		134	44	33	57	
11	Title BB	Publisher X	Platform Z			9-783924-691539		124	32	25	67	
12	Title CC	Publisher Y	Platform Z			9-786432-692557	0154-1521	454	188	189	77	
13	Title DD	Publisher Y	Platform Z			9-781945-693446		286	97	101	88	

**The Section Type (Chapter, encyclopaedia entry, etc.) used in this report must be indicated in the report itself as shown. Where more than one type of Section is used, simply list the predominant type covered in this report.

Note:

1. For 'Customer' specify, for example, the organizational level to which the usage reports refer: e.g. 'Harvard University', 'Department of Chemistry'
2. 'Institutional Identifier' is an optional field until the standard for this identifier being developed by the NISO Institutional Identifiers Working Group is available for implementation.
3. A Book DOI is required for every title on the list. This should be provided simply as an identifier value. (If a Book DOI is not available the cell must be left blank).
4. The Proprietary Identifier column must be included, but cells may be left blank if the vendor has no Proprietary Identifier for a journal
5. The 'Total for all titles' line is provided at the top of the Table to allow it to be stripped out without disrupting the rest of the Table, as the number of titles included may vary from one month to another.
6. Books for which the number of Section requests is zero in every month should **not** be included in Book Report 2.
7. For guidance on Data Display Rules, see Journal Report 1

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the terms used, see Appendix A.

The XML Schema for Book Report 2 is at: <http://www.niso.org/schemas/sushi/#counter>

Book Report 3: Access Denied to Content Items by Month, Title and Category

	Publisher	Platform	Book DOI	Proprietary Identifier	ISBN	ISSN	Access Denied Category	Reporting Period Total	Jan-2011	Feb-2011	Mar-2011
Total for all titles	Publisher X	Platform Z					Access denied: concurrent/simultaneous user licence limit exceeded	0	0	0	0
Total for all titles	Publisher X	Platform Z					Access denied: content item not licenced	1547	551	322	674
Title AA	Publisher X	Platform Z			9-787543-690548	3225-3123	Access denied: concurrent/simultaneous user licence limit exceeded	0	0	0	0
Title AA	Publisher X	Platform Z			9-787543-690548	3225-3123	Access denied: content item not licenced	799	301	171	327
Title BB	Publisher Y	Platform Z			9-781945-693446	2312-8751	Access denied: concurrent/simultaneous user licence limit exceeded	0	0	0	0
Title BB	Publisher Y	Platform Z			9-781945-693446	2312-8751	Access denied: content item not licenced	748	250	151	347

Note:

1. Book Report 3 is only to be supplied for those titles where turnaways are at the title level. In most cases turnaways are at the level of the platform, in which case Book Report 4 applies.
2. For 'Customer' specify, for example, the organizational level to which the usage reports refer: e.g. 'Harvard University', 'Department of Chemistry.'
3. 'Institutional Identifier' is an optional field until the standard for this identifier being developed by the NISO Institutional Identifiers Working Group is available for implementation.
4. A Book DOI is required for every title on the list. This should be provided simply as an identifier value. (If a Title DOI is not available the cell must be left blank).
5. The Proprietary Identifier column must be included, but cells may be left blank where the vendor has no Proprietary Identifier for a title.
6. the 'Total for all titles' line is provided at the top of the Table to allow it to be stripped out without disrupting the rest of the Table, as the number of titles included may vary from one month to another.
7. For guidance on Data Display Rules, see Journal Report 1

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the above terms, see Appendix A.

The XML Schema for Book Report 3 is at: <http://www.niso.org/schemas/sushi/#counter>

Book Report 4: Access Denied to Content Items by Month, Platform and Category

	Publisher	Platform	Proprietary Identifier	Access Denied Category	Reporting Period Total	Jan-2011	Feb-2011	Mar-2011
9	Publisher X	Platform Z		Access denied: concurrent/simultaneous user licence limit exceeded	1631	541	443	647
10	Publisher X	Platform Z		Access denied: content item not licenced	135303	43221	36754	55328
11	Publisher X	Platform Z		Access denied: concurrent/simultaneous user licence limit exceeded	805	300	201	304
12	Publisher X	Platform Z		Access denied: content item not licenced	76335	21220	18671	36444
13	Publisher Y	Platform Z		Access denied: concurrent/simultaneous user licence limit exceeded	826	241	242	343
14	Publisher Y	Platform Z		Access denied: content item not licenced	58968	22001	18083	18884

Note:

1. For 'Customer' specify, for example, the organizational level to which the usage reports refer: e.g. 'Harvard University', 'Department of Chemistry.'
2. 'Institutional Identifier' is an optional field until the standard for this identifier being developed by the NISO Institutional Identifiers Working Group is available for implementation.
3. The Proprietary Identifier column must be included, but cells may be left blank where the vendor has no Proprietary Identifier for a title
4. the 'Total for all titles' line is provided at the top of the Table to allow it to be stripped out without disrupting the rest of the Table, as the number of titles included may vary from one month to another.
5. For guidance on Data Display Rules, see Journal Report 1

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the terms used, see Appendix A.

The XML Schema for Book Report 4 is at: <http://www.niso.org/schemas/sushi/#counter>

Book Report 5: Total Searches by Month and Title

Total Searches by Month and Title											
	Publisher	Platform	Book DOI	Proprietary Identifier	ISBN	ISSN	User activity	Reporting Period Total	Jan-2011	Feb-2011	Mar-2011
Total searches		Platform Z						830	390	199	241
Total searches: federated and automated		Platform Z						2666	1109	621	936
Title AA	Publisher X	Platform Z			9-780901-121233	3131-1212	Regular Searches	312	157	101	54
Title AA	Publisher X	Platform Z			9-780901-121233	3131-1212	Searches: federated and automated	863	433	209	221
Title BB	Publisher Y	Platform Z			9-780901-535543	n/a	Regular Searches	518	233	98	187
Title BB	Publisher Y	Platform Z			9-780901-535543	n/a	Searches: federated and automated	1803	676	412	715

Note:

1. Book Report 5 is to be supplied only for those titles where searches and sessions can be counted at the title level. In most cases searches and sessions are at the level of the platform, in which case Platform Report 1 applies.
2. For 'Customer' specify, for example, the organizational level to which the usage reports refer: e.g. 'Harvard University', 'Department of Chemistry.'
3. 'Institutional Identifier' is an optional field until the standard for this identifier being developed by the NISO Institutional Identifiers Working Group is available for implementation.
4. A Book DOI is required for every title on the list. This should be provided simply as an identifier value. (If a Book DOI is not available the cell must be left blank).
5. The Proprietary Identifier column must be included, but cells may be left blank where the vendor has no Proprietary Identifier for a title
6. The 'Total for all titles' line is provided at the top of the Table to allow it to be stripped out without disrupting the rest of the Table, as the number of titles included may vary from one month to another.
7. Search activity generated by federated search engines and other automated search agents should be categorized separately from regular searches. Any searches derived from any federated search engine (or similar automated search agent) should be included in separate "Searches_federated and automated" counts as indicated in the above report and are not to be included in the "Regular Searches" counts. (See relevant protocol in Section 5 below)
8. For guidance on Data Display Rules, see Journal Report 1

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the terms used, see Appendix A.

The XML Schema for Book Report 5 is at: <http://www.niso.org/schemas/sushi/#counter>

4.1.4 Multimedia Content

Usage of multimedia content (audio, image, video, etc.) where this is a content item in itself (i.e. not part of a Journal, Book or Reference Work) should be reported in Multimedia Report 1, below.

Only Successful Requests for Multimedia Full Content Units may be counted. Usage of thumbnails or descriptive text associated with an image, etc must not be counted. See definition of Multimedia Full Content Unit in Appendix A)

Multimedia Report 1: Number of Successful Multimedia Full Content Unit Requests by Month and Collection

Collection	Content Provider	Platform	Reporting Period Total	Jan-2011	Feb-2011	Mar-2011
Total for all collections			15051	4957	3783	6311
Collection AA	Provider X	Platform Z	2285	655	432	1198
Collection BB	Provider X	Platform Z	10515	3329	2765	4421
Collection CC	Provider Y	Platform Z	281	87	93	101
Collection DD	Provider Y	Platform Z	1925	886	448	591

Note:

- Multimedia Report 1 is required **only** for products that consist of collections of multimedia items (audio, video, images). Where multimedia content is published within a journal or book, its usage should be reported in the appropriate COUNTER Journal or Book reports.
- For 'Customer' specify, for example, the organizational level to which the usage reports refer: e.g. 'NorthEast Research Libraries Consortium', 'Yale University'
- 'Institutional Identifier' is an optional field until the standard for this identifier being developed by the NISO Institutional Identifiers Working Group is available for implementation.
- For guidance on Data Display Rules, see Journal Report 1

The above report complies with the COUNTER Code of Practice for collection and reporting of usage data. For definitions of the terms used, see Appendix A.

The XML Schema for Multimedia Report 1 is at: <http://www.niso.org/schemas/sushi/#counter>

4.1.5 Reports for a Library Consortium

If a product has been acquired by a library consortium, the vendor must (unless the resulting reports are unmanageably large in size, in which case the SUSHI Harvester tool, described in Section 4.1.6 below, is an alternative approach) provide a readily accessible single usage report for the consortium that includes details for each member of the consortium. This report must contain only the consortium members (and no extraneous institutions outside the consortium). The vendor must also provide to the consortium individual reports for each consortium member or institute (unless forbidden to do so by contract with a consortium member or institute). In consortia where more than one member institution may share an IP address, or range of IP addresses, the total usage statistics reported in the consolidated Consortium Reports 1,2 and 3 below, must be de-duplicated. This means that, in such cases, the total usage reported may be less than the sum of the usage reported for each member institution.

Consortium Report 1: Number of successful full-text journal article or book chapter requests by month and title, (XML only).

XML Schema: <http://www.niso.org/schemas/sushi/#counter>

This report is a single XML file, broken down by consortium member, which contains the full-text usage data for every online journal and book taken by individual consortium members, calculated on the same basis as in Journal Report 1 and in Book Reports 1 and 2, using the data processing rules specified in Section 5 below.

Consortium Report 2: Total searches by month and database (XML only).

XML Schema: <http://www.niso.org/schemas/sushi/#counter>

This report is a single XML file, broken down by consortium member, which contains the search, record view and result click counts for each database taken by individual consortium members, calculated on the same basis as for Database Report 1, above, using the data processing rules specified in Section 5 below.

Consortium Report 3: Number of Successful Multimedia Full Content Unit Requests by Month and Collection (xml only)

- ***To be used only by vendors that provide Multimedia Report 1***

XML Schema: <http://www.niso.org/schemas/sushi/#counter>

This report is a single XML file, broken down by consortium member, which contains the usage data for multimedia full content units in collections taken by individual consortium members, calculated on the same basis as in Multimedia Report 1, using the data processing rules specified in Section 5 below.

Note:

1. The XML schema covering the above usage reports is available on the NISO/SUSHI website (<http://www.niso.org/schemas/sushi/#counter>). This schema can be used with the SUSHI and COUNTER_SUSHI schemas to retrieve any of the COUNTER reports (journals, databases, books, reference works, consortium). The flexibility of the schema is achieved through the use of several self-defining elements. Rather than enumerate the allowed values within the schema, these values are defined outside of the schema to allow new reports and metrics to be added without needing to update the schema each time. The values for the "Report" data element are listed in the Report Registry (<http://www.niso.org/workrooms/sushi/reports/>). Values for other elements can be found on the COUNTER Schema Data Element Values webpage (<http://www.niso.org/workrooms/sushi/values/>).

2. Where journal articles and book chapters are available on the same platform, usage should be included in the same consortium report. Where journal articles and book chapters are available on separate platforms usage should be reported separately.

4.1.6 The SUSHI Harvester for Library Consortia

When publishers with very large numbers of journals are reporting to consortia with very large numbers of members, there are instances where the Consortium Report files can become inconveniently large for the publisher or the customer. In these instances there is an acceptable, COUNTER-compliant alternative to the Consortium Reports. This involves using the SUSHI Harvester for Consortia, a free Microsoft Access application from EBSCO that leverages the open source SUSHI MISO client (developed by Serials Solutions) to batch download Journal Report 1, Database Report 1, Book Reports 1 and 2, or Multimedia Report 1 for the member institutions of a consortium. (Note: The SUSHI Harvester for Consortia may also be used to batch download the other COUNTER usage reports). COUNTER leaves it to vendors and their customers to decide between them which approach (the Consortium Reports or SUSHI Harvester) is appropriate for a particular customer.

The SUSHI Harvester for Consortia, together with a detailed User Guide containing instructions on how to implement it, may be found on the NISO website at:

http://www.niso.org/apps/group_public/download.php/4774/SUSHI-Harvester.zip

4.2 Customer Categories for Usage Reports

Customer accounts, access and entitlements to vendor sites are authenticated in a number of different ways, but most commonly by IP addresses or by username/password.

The vendor must provide COUNTER usage reports at different levels, in line with the level at which the vendor holds the account on its system. For example, if a vendor treats a university business school as an entity with a separate customer ID, which can be identified by, for example, unique IP addresses distinguishable from the full range of university IP addresses, then reports must be delivered at the business school level.

4.3 Report Delivery

Unless specified otherwise in Section 4.1, all COUNTER reports must conform to the following standards:

- Reports must be provided in the following formats:
 - Microsoft Excel file (see Section 4.1 above), or as a Tab Separated Value (TSV) file or other structured text file that can be easily imported into Microsoft Excel and other spreadsheet programmes without loss or corruption of data. Microsoft Excel files may be offered in addition to text files.
 - As XML formatted in accordance with the COUNTER schema (<http://www.niso.org/schemas/sushi/#counter>). More information on XML formatting is available in Appendix G.
- Each report should reside in a separate file or page to avoid files of unwieldy size
- Reports should be made available on a password-controlled website (accompanied by an optional email alert when data is updated).
- For consortium usage reports the consortium administrator must be able to access both the consolidated consortium level usage statistics and the usage statistics for individual consortium member institutions, from a single login, using the same user id and password (i.e. without having to log out and back in for each individual institution).
- Reports must be readily available
- Reports must be provided monthly
- Data must be updated within four weeks of the end of the reporting period
- A minimum of the most recent 24months of usage data must be available, unless the vendor is newly-COUNTER compliant

- The reports must allow the customer the flexibility to specify a date range, in terms of months, within the most recent 24 month period. Where no date range is specified, the default shall be calendar year and calendar-year-to-date reports for the current year.
- XML versions of the reports must be available for harvesting via the SUSHI protocol within 4 weeks of the end of the reporting period.

4.4 Web browsers

Usage statistics reported in the COUNTER reports must be consistent and not dependent on the browsers used by customers. As a minimum vendors must support current versions, compliant with World Wide Web Consortium (WC3) standards, of the following web browsers: Google Chrome, Internet Explorer and Mozilla Firefox.

5. Data Processing

Usage data collected by vendors/intermediaries for the usage reports to be sent to customers should meet the basic requirement that only intended usage is recorded and that all requests that are not intended by the user are removed.

Because the way usage records are generated can differ across platforms, it is impractical to describe all the possible filters used to clean up the data. This Code of Practice, therefore, specifies only the requirements to be met by the data to be used for building the usage reports.

Usage data can be generated in a number of ways and COUNTER does not prescribe which approach should be taken. The two most common approaches are: *logfile analysis*, which reads the logfiles containing the web server records all of its transactions; and *page tagging*, which uses JavaScript on each page to notify a third party server when a page is rendered by a web browser. Each of these two approaches has advantages and disadvantages, summarised below:

Advantages of logfile analysis

The main advantages of logfile analysis over page tagging are:

- The web server normally already produces logfiles, so the raw data are already available. No changes to the website are required.
- The data is on the organization's own servers and is in a standard, rather than a proprietary, format. This makes it easy for an organization to switch programmes later, use several different programmes, and analyse historical data with a new programme
- Logfiles contain information on visits from search engine spiders. Although these should not be reported as part of user activity, it is useful information for search engine optimization.
- Logfiles require no additional DNS Lookups. Thus there are no external server calls which can slow page load speeds, or result in uncounted page views.
- The web server reliably records every transaction it makes, including, e.g., serving PDF documents and content generated by scripts, and does not rely on the visitor's browser co-operating

Advantages of page tagging

The main advantages of page tagging over logfile analysis are:

- Counting is activated by opening the page, not requesting it from the server. If a page is cached it will not be counted by the server. Cached pages can account for a significant proportion of pageviews
- Data is gathered via a component ('tag') in the page, usually written in JavaScript; though Java can be used and increasingly Flash is used. JQuery and AJAX can also be used in conjunction with a server-side scripting language (such as PHP) to manipulate and store it in a database, allowing complete control over how the data is represented

- The script may have access to additional information on the web client or on the user, not sent in the query
- Page tagging can report on events that do not involve a request to the web server
- Page tagging is available to companies who do not have access to their own web servers
- The page tagging service manages the process of assigning cookies to visitors; with logfile analysis the server has to be configured to do this
- Recently page tagging has become a standard in web analytics
- Logfile analysis is almost always performed in-house. Page tagging can be done in house, but is more often provided as a third-party service. The cost differences between these two models can also be a consideration.

Return codes and time filters

- a. Only successful and valid requests should be counted. For web server logs successful requests are those with specific NCSA return codes. (200 and 304). The standards for return codes are defined and maintained by NCSA. In case key events are used their definition should match the NCSA standards.(For more information see Appendix D: Guidelines for Implementation.)
- b. Records generated by the server together with the requested page (e.g. images, gif's, style sheets (.css)) should be ignored.
- c. All users' double-clicks on an http-link should be counted as only 1 request. The time window for occurrence of a double-click should be set at **10 seconds** between the first and the second mouse-click.

There are a number of options to make sure that a double click comes from one and the same user:

1. where only the IP address of a user is logged that IP should be taken as the field to trace double-clicks
2. when a session-cookie is implemented and logged, the session-cookie should be used to trace the double-clicks.
3. when user-cookies are available and logged, the user-cookie should be used to trace double-clicks
4. when the username of a registered user is logged, this username should be used to trace double-clicks.

The options 1 to 4 above have an increasing level of reliability for filtering out double-clicks: option 1 has the lowest level of precision (and may lead to under reporting from the vendor perspective) while with option 4 the result will be optimal.

The downloading and rendering of a PDF, image, video clip or audio clip may take longer than the rendering of an HTML page. Therefore requests by one and the same IP/username/session- or user cookie for one and the same PDF, image, video clip or audio clip should be counted as a single request if these multiple requests occur within a **30 seconds** time window. These multiple requests may also be triggered by pressing a refresh or back button on the desktop by the user.

When two requests are made for one and the same article within the above time limits (10 seconds for HTML, 30 seconds for PDF), the first request should be removed and the second retained. Any additional requests for the same article within these time limits should be treated identically: always remove the first and retain the second. (For further information on the implementation of this protocol, see Appendix D: Guidelines for Implementation)

Correcting for the effects of federated searches and internet robots on usage statistics

The growing use of federated searches and the spread of internet robots have the potential to inflate enormously the usage statistics reported in the COUNTER reports. Without some control these activities could result in significant over-counting.

COUNTER protocols have been developed to mitigate the inflationary effects of federated searches, internet robots and search-engine prefetching on the reported usage statistics. COUNTER-compliant Vendors are required to implement these protocols, itemised below.

Protocol for federated searches and automated search agents

Search activity generated by federated search engines and automated search agents should be categorized separately from regular searches. Any searches generated from such systems should be included in separate “Searches-federated and automated” counts within Database Report 1 and Platform Report 1, and are not to be included in the “Regular Searches” counts in these reports. (See example Database Report 1 and Platform Report 1 in Section 4.1.2 above).

‘Federated Searches’ and ‘Automated Searches’ covered by this protocol are defined in Appendix A.

Federated search engines may utilize a variety of techniques to conduct a search, including Z39.50; standard or proprietary XML gateways or APIs; or, by screen-scraping the standard HTML interface. Federated search activity must be recognized regardless of the method of search. Following are some examples of how search activity can be recognized – the content provider may wish to employ one or more of these techniques.

- The Federated Search engine may be using its own IP address. This IP can be identified and used for segregation of activity.
- If the standard HTML interface is being used, the browser ID within the web logs can be used to identify the activity as coming from a federated search.
- For Z39.50 activity, access is generally achieved through username/password. Create a unique username/password that just the federated search engine will use.
- If an API or XML gateway is available, set up an instance of the gateway that is for the exclusive use of such search tools.
- If an API or XML gateway is available, require the federated search to include an identifying parameter when making requests to the gateway.

A list of federated search engines covered by the above protocol is included in Appendix I. This list, which will be updated from time-to-time, should be regarded as the minimum requirement for COUNTER compliant vendors.

Protocol for internet robots and crawlers

Activity generated by internet robots and crawlers must be excluded from all COUNTER usage reports. A list of internet robots that must be excluded is provided in Appendix J. This list, which will be updated from time-to-time, should be regarded as the minimum requirement for COUNTER compliant vendors.

Protocol for tools that enable the bulk downloading of full-text articles and other content items

Only genuine, user-driven usage should be reported. Usage of full-text articles that is initiated by automatic or semi-automatic bulk download tools, such as Quosa or Pubget) should only be recorded when the user has clicked on the downloaded full-text article in order to open it.

Retrospective reporting of errors in usage data

Where vendors discover (or the independent audit reveals) errors in the usage statistics they have been providing in the COUNTER reports, such errors must be corrected within 3 months of their discovery and customers informed of the corrections.

Reporting of usage statistics when journal titles change

When the title of a journal is modified or changed, usage statistics for that journal prior to the title change should be reported against the new title, provided the Journal DOI/ISSN is unchanged, with the original title being dropped from the list. Where a new Journal DOI/ISSN is allocated to the new title, the usage statistics should be reported separately, and those for the original title should continue to be reported against the original Journal DOI/ISSN.

Identifying abnormal spikes in usage

What is regarded as an abnormal spike in usage can vary from one institution to another; there are many occasions in which exceptionally high usage in a particular month is genuine. For these reasons COUNTER does not provide a strict protocol for dealing with spikes in usage that must be applied in all situations. Instead COUNTER suggests approaches that have been well-tested and which should prove useful in flagging abnormal spikes in usage that may warrant further investigation. These approaches are described in Appendix D: Guidelines for Implementation. COUNTER does not prescribe a course of action once abnormal spikes in usage have been identified; this is left to the discretion of customer and vendor.

6. Auditing

An important feature of the COUNTER Code of Practice is that compliant vendors must be independently audited on a regular basis in order to maintain their COUNTER compliant status. To facilitate this, a set of detailed auditing standards and procedures has been published in Appendix E of this Code of Practice. In developing these COUNTER has tried to meet the need of customers for credible usage statistics without placing an undue administrative or financial burden on vendors. For this reason audits will be conducted online using the detailed test scripts included in the auditing standards and procedures.

The independent audit is required within 6 months of vendors first achieving compliance with the COUNTER Code of Practice for e-Resources, and annually thereafter. COUNTER will recognize an audit carried out by any CPA (Certified Public Accountant) (USA), by any CA (Chartered Accountant) (UK), or by their equivalent in other countries. Alternatively, the audit may be done by another, COUNTER-approved auditor, such as ABC, which is not a CA or a CPA.

6.1 The Audit Process

- a) COUNTER compliant vendors will be notified in writing by COUNTER that an audit is required at least 3 months before the audit is due.
- b) Vendors should respond within 1 month of receiving the reminder by informing COUNTER of their planned timetable for the audit and the name of the organization that will carry out the audit. Any queries about the audit process may be raised at this time.
- c) Irrespective of the auditor selected, the audit must adhere to the requirements and use the tests specified in Appendix E of this Code of Practice. The audit is carried out in three stages: Stage 1 covers the format and structure of the usage reports; in Stage 2 the auditor tests the integrity of the reported usage statistics; in Stage 3 the auditor checks that the delivery of the usage reports adheres to the COUNTER requirements

- d) Upon completion of the audit the auditor is required to send a signed copy of the audit report to the COUNTER office (lorraine.estelle@counterusage.org).

6.2 Categories of audit result are as follows:

- **A Pass**, in which case no further action is required by the publisher as a result of the audit. In some cases the auditor may add Observations to the audit report, which are designed to help the vendor improve its COUNTER usage reports, but which are outside the scope of the audit itself.
- **A Qualified Pass**, in which the auditor deems the publisher to have passed the audit, but where the auditor raises a Minor Issue requiring further action to maintain COUNTER-compliant status. A Minor Issue does not affect the reported figures, but is one which should be resolved within 3 months of the audit to maintain COUNTER-compliant status. An example of a Minor Issue is where a report format does not conform to the COUNTER specifications.
- **A Fail**, where the auditor has identified an issue that must be resolved immediately for the vendor to maintain COUNTER -compliant status

7. Compliance

7.1 Timetable and procedure

Release 4 of the COUNTER Code of Practice for e-Resources, published in final form in March 2012, will become the only valid version of the Code of Practice from 1 January 2014.

Applications for COUNTER-compliant status

A Register of Vendors and their products for which COUNTER compliant usage reports are available is maintained by the COUNTER office and posted on the COUNTER website. Vendors may apply to the Project Director (lorraine.estelle@counterusage.org) for their products to be included on the Register. Upon receipt of the application vendors will be required to allow at least one of the COUNTER library test sites to evaluate their usage reports. When the usage reports are deemed to comply with the COUNTER Code of Practice the vendor will be asked to sign a Declaration of COUNTER-compliance (Appendix B), after which the vendor and its products will be added to the Register. Within 6 months thereafter a report from an independent auditor, confirming that the usage reports and data are indeed COUNTER-compliant, will be required. See Appendix E for a description of the auditing procedure.

The signed declarations should be sent to the COUNTER office as email attachments, to: lorraine.estelle@counterusage.org

7.2 Licence agreements

To encourage widespread implementation of the COUNTER Code of Practice, customers are urged to include the following clause in their licence agreements with vendors:

'The licensor confirms to the licensee that usage statistics covering the online usage of the products covered by this licence will be provided. The licensor further confirms that such usage statistics will adhere to the specifications of the COUNTER Code of Practice, including data elements collected and their definitions; data processing guidelines; usage report content, format, frequency and delivery method'.

7.3 Aggregators, gateways and hosts

Many online searches, are conducted using gateways or aggregators, rather than on the site of the original publisher of the item being sought. This presents special challenges for the collection of meaningful usage statistics for COUNTER Reports. In order to avoid the risk of duplicate counting of full-text usage, publishers and intermediaries must adhere to the following principle: the entity that delivers the full-text article to the customer is the entity responsible for recording usage and

reporting that usage to the customer in COUNTER Reports, such as Journal Report 1. The only exception to this rule is where a contractual arrangement is in place that requires one or the other to report usage to the customer, irrespective of whether they deliver the full text to that customer. Under no circumstances may both publisher and intermediary record and report the same instance of usage.

7.4 Customer confidentiality

7.4.1 Privacy and user confidentiality

Statistical reports or data that reveal information about individual users will not be released or sold by vendors without the permission of that individual user, the consortium, and its member institutions (ICOLC Guidelines, October 2006)

7.4.2 Institutional or Consortia Confidentiality

Vendors do not have the right to release or sell statistical usage information about specific institutions or the consortium without permission, except to the consortium administrators and other member libraries, and to the original publisher and copyright holder of the content. Use of institutional or consortium data as part of an aggregate grouping of similar institutions for purposes of comparison does not require prior permission as long as specific institutions or consortia are not identifiable. When required by contractual agreements, vendors may furnish institutional use data to the content providers. (Based on ICOLC Guidelines, October 2006).

8. Maintenance and development of the Code of Practice

The Executive Committee of COUNTER has overall responsibility for the development and maintenance of the Code of Practice. Each new Release will be made openly available in draft form on the COUNTER website for comment before it is finalised. Comments may be sent to the Project Director, Dr Peter T Shepherd at lorraine.estelle@counterusage.org.

When providing your comments you are requested to adhere to the following guidelines:

- Please be as specific as possible, making sure to note the relevant section and subsection of the Code of Practice.
- Where you are proposing an addition to the Code of Practice, please indicate the preferred section within the current version

9. Appendices

Appendix A: Glossary of Terms relevant to COUNTER

Appendix B: Vendor Declaration of COUNTER Compliance

Appendix C: SUSHI

Appendix D: Guidelines for implementation

Appendix E: Auditing requirements and tests

Appendix F: Excel Usage Reports examples

Appendix G: XML overview, with links to the up to date schemas

Appendix H: Optional Additional Usage reports

Appendix I: List of federated and automated search engines

Appendix J: List of internet robots, crawlers, spiders, etc.