



	MetaArchive	DuraCloud	Preservica	DPN	APTrust	Chronopolis	Arkivum	Texas Digital Library	Ex Libris Rosetta
Member / Customer orientation and training	New member orientation usually consist of 2-3 sessions to train new members on how to prepare for and carry out ingests, use technical documentation, and how to get involved with the membership community	There is. The tool is kept very simple. Provide the videos and a one hour webinar customized for the customer to provide an overview and answer any specific questions. Artefactual Systems provides training and support for ArchivesDirect which is a combination of Archivematica and DuraCloud.	Yes, dedicated customer training as part of onbo	via dura-space and AP-Trust. Working with AVPreserve to create curriculum, partnering with educopia to make curriculum available and evaluate its effectiveness. DPN is more of a catalyst organization rather than educational organization. Identifying and articulating problems and bringing resources to them.	combination of documentation in wiki and google groups- in the process of streamlining , plus in-person and group training by fellow members, and finally AP Trust staff does on-site	Customers purchase services through DuraCloud who are responsible for providing training and instruction.	depends on what customers have purchased. for data archiving solution, we store customers data for them and guarantee data integrity. customer receives appliance, and then arkivum manages software installation and management. Also have Perpetua product for cultural memory which includes some training in partnership with archivematica, AIOM, etc. and then there are webinars and ongoing training	some staff do training with new members and new users. coordinate training events. POWRRR digital preservation workshops	Yes, every customer receives training as part of implementation, on-site or online depending on customer preference. Also, video training is provided via website.
Webinar trainings	Yes, but currently not regular or frequently	<a href="http://www.duracloud.org/presentations/webinars">http://www.duracloud.org/presentations/webinars</a>	Very active webinar series, including multiple collaborative series with professional associations (COSA/SERI, ARA/IRMS) <a href="http://preservica.com/resources/webinars/">http://preservica.com/resources/webinars/</a> .	committed to doing general webinars on digital preservation.	no	Yes	Yes	Yes	Yes
In-person workshops	Yes, but currently not regular or frequently	Workshops are provided on an ad hoc basis as new features are employed. For example, Open Repositories workshop provided two years ago.	Briefings and workshops targeted at specific users <a href="http://preservica.com/category/events/">http://preservica.com/category/events/</a> . Provide at conferences and events. For example, SAA.		informal interactive hands-on training on site	No	Yes, on-site workshops both pre-sale and post-sale. a	Yes	Yes
Video tutorials	No	<a href="https://www.youtube.com/user/duracloudvideos">https://www.youtube.com/user/duracloudvideos</a>	<a href="https://www.youtube.com/channel/UC21mQlv6pAW5L48tZAaNCvW">https://www.youtube.com/channel/UC21mQlv6pAW5L48tZAaNCvW</a>		some videos on youtube, but starting to get dated	Yes, youtube tutorials for DuraCloud.	Yes	Yes, adobe connect, youtube	Yes
Help Desk / Troubleshooting assistance	Dedicated help desk for members at support@metaarchive.org	<a href="https://duraspace.zendesk.com/hc/en-us/categories/200045497-DuraCloud-Help-desk-and-troubleshooting">https://duraspace.zendesk.com/hc/en-us/categories/200045497-DuraCloud-Help-desk-and-troubleshooting</a> is included in the subscription. People who provide support are the same people who provide the tool and help people with the implementation.	<a href="http://preservica.com/support/">http://preservica.com/support/</a>	informally through DPN employees on legal agreements, formally through APTrust or DuraSpace on ingest.	help@aptrust.org plus emails directly to Bradley and especially to Andrew	Yes	Yes, phone line and email help desk ticketing system	Yes	Yes, 24x7
<b>Documentation</b>									
Open documentation	Somewhat. Technical Specifications for hardware requirements available on website. Members-only wiki provides in depth technical resources	<a href="https://wiki.duraspace.org/display/DURACLOUD/DuraCloud">https://wiki.duraspace.org/display/DURACLOUD/DuraCloud</a>	No	Yes. technical specs on website	<a href="https://sites.google.com/a/aptrust.org/member-wiki/home">https://sites.google.com/a/aptrust.org/member-wiki/home</a>	Not public. Detailed technical documentation is not available, but overviews available.	No. But customers have access to documentation . not public	Yes	Yes. <a href="http://knowledge.exlibrisgroup.com/Rosetta/Product_Documentation">http://knowledge.exlibrisgroup.com/Rosetta/Product_Documentation</a>
Knowledge base of common issues	Not specifically, but similar content available on wiki	No, but have documentation available on wiki.	Yes, FAQ, but available only to subscribers.	Yes. FAQ google group. <a href="https://groups.google.com/forum/#!forum/dpn-faq">https://groups.google.com/forum/#!forum/dpn-faq</a>	on website, in process of refining	Not public	No but small collection of case studies, white papers <a href="http://arkivum.com/resources/">http://arkivum.com/resources/</a> . Customers have access to FAQs and Known Issues.	no, gone through a few in the past, but not right now. subject to change	Yes, available on portal. Support team documentation available to all customers.
<b>Community Facilitation</b>									
Community / User / Customer focused staff position	Yes, Preservation Communities Manager for Educopia works half time with MetaArchive			Mary is CEO as well as community relations. Hopefully hiring another person soon.	Bradley Daigle, Content and Strategic Expert	Yes, Sibyl for Chronopolis, and Heather for DuraCloud.	All customers have account manager, plus sales team.	marketing coordinator position that also coordinates committees and groups, and managing conference--more of a committee coordinator. Soon to hire communications coordinator. Also have a services manager	Yes. Dedicated Rosetta support team and the Rosetta product manager.
Community discussion and product updates	Monthly community calls focused on topical discussions provide opportunity for regular communication / interaction amongst community members. Community Manager regularly communicates with members in relation to committee activities, ingests, and technical troubleshooting	Yes, it is Heather Greer Klein, the Services Coordinator.  DuraCloud and ArchivesDirect mailing list that includes updates. Heather reaches out 90 days before renewal to do a check-in. Help desk answers questions as well as troubleshoots and problem solves. Also DuraSpace newsletter that includes other DuraSpace services as well as DuraCloud and ArchivesDirect information.	Yes  Yes, webinar series to keep customers up-to-date on new services, products.	mailing lists (below)	closed email lists, open email lists, contact groups (groups and sub-groups) receive targeted communication. board works by phone a lot	Announcements via DuraSpace newsletter.	no. customers can discuss issues or feature requests but not a forum for customers . they have about 100 customers, some are direct, some are partners	Yes	Yes, updates and new features, etc. are posted to customer mailing list, which serves also as a mean for discussion between customers on usage, preservation issues, etc
Mailing List for members / users	Yes, members-only mailing list	<a href="https://groups.google.com/forum/#!forum/duracloud-users">https://groups.google.com/forum/#!forum/duracloud-users</a>	User Portal / Forums <a href="https://usergroup.preservica.com/login?redirect_to=/forums/">https://usergroup.preservica.com/login?redirect_to=/forums/</a>	General mailing list for anyone, also google groups for various committees	<a href="https://groups.google.com/forum/#!forum/aptrust-community">https://groups.google.com/forum/#!forum/aptrust-community</a>	No	Yes	Yes	Yes <a href="http://el-una.org/mailling-lists/rosetta-mailing-lists/">http://el-una.org/mailling-lists/rosetta-mailing-lists/</a>
In-person member / user meetings	In-person annual Steering Committee meeting	In-person, annual DuraSpace Summit.	<a href="http://preservica.com/category/user-group-gatherings/">http://preservica.com/category/user-group-gatherings/</a>	Monthly calls and annual in-person meetings	Two in-person member meetings in Fall and Spring	Not at this time.	no. except for one-on-one	Yes. monthly conference calls, and yearly conference	Yes, annually face-to-face. Also quarterly working group web meetings. Meetings with advisory groups as needed.
<b>Outreach and Communications</b>									
Social media presence	<a href="https://twitter.com/metaarchive">https://twitter.com/metaarchive</a>	<a href="https://twitter.com/DuraCloud">https://twitter.com/DuraCloud</a>	<a href="https://twitter.com/preservica">https://twitter.com/preservica</a> (corporate); chief tech officer also has active twitter account	<a href="https://twitter.com/DPNdotOrg">https://twitter.com/DPNdotOrg</a>	twitter account		twitter, blog, youtube, linked in, maybe vimeo. twitter is the main one	facebook and twitter	Twitter, Facebook, LinkedIn and Youtube presence as part of Ex Libris, not specific to Rosetta.  Three additional websites: Ideas Exchange--platform for customers to suggest new features for products. Voting platform. <a href="http://ideas.exlibrisgroup.com/forums/308179-rosetta">http://ideas.exlibrisgroup.com/forums/308179-rosetta</a>  Also a developer network platform for discussion of technical implementation. Where APIs are available, integration information, technical blog posts and forums - <a href="https://developers.exlibrisgroup.com/rosetta">https://developers.exlibrisgroup.com/rosetta</a>  GitHub repository for plug-ins, SDK, and more - <a href="https://github.com/ExLibrisGroup?u89=%E2%9C%93&amp;q=rosetta&amp;type=&amp;language=">https://github.com/ExLibrisGroup?u89=%E2%9C%93&amp;q=rosetta&amp;type=&amp;language=</a>
Conference presentations (sponsorship, exhibitor, presenters?)	Yes, active presence at a variety of conferences	At a variety of conferences, OR, PASIG, SAA, DPLA, CNI, have exhibits at conferences as well.	<a href="https://twitter.com/preservation">https://twitter.com/preservation</a>  <a href="https://www.linkedin.com/company/preservica">https://www.linkedin.com/company/preservica</a>	Yes, active presence	<a href="http://aptrust.org/news/category/presentations">http://aptrust.org/news/category/presentations</a>	<a href="https://library.ucsd.edu/chronopolis/publications/index.html">https://library.ucsd.edu/chronopolis/publications/index.html</a> <a href="https://library.ucsd.edu/chronopolis/presentations/index.html">https://library.ucsd.edu/chronopolis/presentations/index.html</a>	Yes. medical conferences to discuss the need for compliance data archiving. Digitization events, Digital preservation coalition, IDCC, and sector-based conferences. also sponsorship and exhibiting at sector-based conferences.	annual, annual conference, plus DLF, RDAP, Open Repositories, TLA, US-ETDA, Texas ETD, LITA	Yes, present at PASIG, IPres, IDCC, and others, extensive sponsorship, exhibitor presence

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<b>Marketing</b>									
Promotion / advertising in professional association forums	No	Exhibiting at conferences but mostly word of mouth at this point. Many of users are members of DuraSpace.	Yes, conference participation, events, webinars, government records organization	no really, published a few flyers. Co-sponsored conferences like PASIG and Digital Preservation 2016		Promotional materials are being developed. More through conference presentations than through vendor booths. Service is primarily for UCSD but offering out to other institutions.	events, press releases, work with range of analysts, social media, website to market their stuff	no	Yes. Just published white paper on preservation that is being shared widely via Google and LinkedIn.
<b>Membership</b>									
Organization types	Currently academic libraries, public libraries, archives, museums, library consortia	All kinds, but mostly cultural heritage types of institutions. Some for-profit business but that isn't the core.	Customers range from national archives to public	Universities, other consortia, one commercial member (figshare), future in public libraries and cultural heritage organizations	academic libraries, all happen to be ARL libraries. Working on different membership model, that may include public libraries and liberal arts	Anyone. Not a membership organization.	Markets service to health care, financial services, heritage, and higher education industries	higher-ed institutions, currently subject to change	Mostly academic libraries and cultural heritage organizations (national and state libraries, etc.). Also archives
Numbers	22 members, over 60 participating institutions (Collaborative members include multiple institutions)	Under 200. DuraCloud plus Chronopolis is DuraCloud Vault. (duracloudvault.org)	100+	maybe 53—people come and go		16 Hard to quantify. Primarily UCSD users, but also NCAR and other users.		100 22. stable and steadily growing	250+
<b>Additional categories from NDSA Levels of Preservation to be reviewed for possible inclusion and perhaps redistributed throughout other category themes above</b>									
Supports multiple formats (Storage level 4)	Yes	Yes, all formats	Yes	Yes	Yes		Yes, format agnostic for data archiving, archivematica does file format recognition	Yes	
Uses separate geographic locations with different disaster threats (Storage level 4)	Yes			Yes	Yes		Yes. 2 data centers are in the UK, south and north, several 100 miles apart, by different operators, plus a 3rd copy offline, in a different location. also allows exit strategy for customers, normally with company called DRS, but it could be at the customer's site. MCMA for example uses their system, but usually locally	Yes	
System supports documentation of storage media and what is needed to use them (Storage Level 2)	Yes	Yes, as long as what we are referring to is that content is stored in the cloud. Part of point of DuraCloud is that you don't have to talk to all the different storage systems. Document what storage systems are used.	Yes, users need no awareness of the storage media	N/A	to a limited extent at node level, but Amazon Glacier does not document		Yes, Arkivum handles all this on behalf of customers, so customers don't have to worry about it	Yes	Rosetta is an on premise solution, up to customer to provide replication and storage.
Obsolescence monitoring process for storage system and media (Storage Level 3)	Yes, regular storage media refresh cycle based on Technical Specifications	Leave that to storage vendors (Amazon and others).	Yes, one of main functions is to monitor content	Yes - at node level	Yes		Yes	Yes	
Checks fixity of all content on ingest and at regular intervals (Fixity and integrity levels 2 and 3)	Yes	Yes, check twice/year.	Yes, part of core functionality of system.	Yes	Yes		Yes	it depends on the preservation service. Yes to Amazon S3, check fixity on ingest for glacier, but not ongoing for glacier, other services do ongoing fixity	Yes, during ingest and at any interval a customer decides on. Comes with algorithms such as SHA-1, SHA-256, MD5 and CRC32 out of the box and any additional algorithm can be added by customers.
Supports virus checks on all content (Fixity and integrity level 3)	No	No, but ArchivesDirect does this.	Yes, also part of ingest process.	No - presumed that already happened, doing post-hoc virus checking would change fixity.	No, if some did a disk image and didn't scan it, it would go in.		No, everything is archived as is, stored in bitstreams, unless it goes through the archivematica service	Not at the moment, but rethinking.	Yes, and any virus checking software can be added by customer.
maintains logs of fixity information (Fixity and integrity level 3)	Yes	Yes, DuraCloud does this over and above what the storage providers do.	Yes, held with each item and all activity in system	Yes	Yes		Yes, and customers get checksum reports, plus there are internal checksums on encrypted data	Yes	Yes, any events are captured and preserved.
Support auditing of fixity logs (Fixity and integrity level 3)	Yes	Yes, DuraCloud does this over and above what the storage providers do.	Yes, can check fixity any time you want. Log files	Yes	Yes - and depositors will soon be able to query their deposits to check their own fixity		sort of, they check integrity before and after. They have audit logs that record fixity at different points	can, but don't	Yes.
Supports corrupt data detection (Fixity and integrity level 3)	Yes	Yes, DuraCloud does this over and above what the storage providers do.	Yes, checks to make sure that integrity is maintained	Yes	Yes. Pull from different site		Yes	not at the moment, but rethinking.	Yes.
Ability to replace/repair corrupted data (Fixity and integrity level 4)	Yes	Yes, replace from other storage.	Yes, predicated on idea that you have multiple storage	Yes	Yes		Yes	Yes	Yes.
no one person has write access to all copies (Fixity and integrity level 4)	Yes	No one person at user end does. User writes to the primary copy.	Once something is stored in archive, it is read only	No	maybe Andrew D. but that might change		No, especially because of escrow copy, which requires at least 2 people to get access to data	Yes	Rosetta provides user management and segregation by users and roles. Up to the customer to decide who will get access to which content.
Supports access restriction to individual files (Information Security Level 1)	No	Yes, access restriction at DuraCloud level and by individual storage provider.	Security levels are very granular.	Yes	Yes		Yes	Yes	Yes
Maintain logs of who performed what actions on files, including deletions and preservation actions (Information Security Level 3)	Yes	Yes.	Yes, all activity is logged in systems logs and data	Yes - recorded as premis events	Yes - premis events, and through admin interface		Yes	Yes. in logs	
audits security and access logs (Information Security Level 4)	Not sure	Not in a systematic way.	Yes	No central, it would be at the Node level if at all	Yes. could.	Have to check for each location, but there is a limited (usually only 1) number of people who can do this at each site.	Yes	No	Yes, provenance events are all captured.
Inventory of content and its storage location (Metadata Level 1)	Yes	Yes.	Yes, can run reports of content on storage locations	centralized registry that of content deposited in DPN	Yes, through admin interface		Yes	Yes	Yes.
Ensure backup and non-collocation of inventory (Metadata Level 1)	Yes	Yes, of the inventory that is stored in DuraCloud.	Yes, multiple storage copies that are geo-redundant	Yes	Yes		Yes	Yes	Customer responsibility.
Will store administrative metadata (Metadata Level 2)	Yes	Yes.	Yes	Yes	Yes		Yes	Yes	Yes.
Will store transformative metadata and log events (Metadata Level 2)	Yes, but migration / transformation is not a provided service	Will store any kind of metadata that user wants to store.	Yes	Yes	Yes		Yes	Yes	Yes.
Will store standard technical and descriptive metadata (Metadata Level 3)	Yes	Will store any kind of metadata that user wants to store.	Yes	Yes	Yes		Yes	Yes	Yes.
Will store standard preservation metadata (Metadata Level 4)	Yes	Will store any kind of metadata that user wants to store.	Yes	Yes	Yes		Yes	Yes	Yes.
Inventory of file formats in use (File formats Level 2)	No	No.	Yes, database with registry of all formats that the	No	No		Yes	No	Yes, file format in use reporting.

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Monitor file format obsolescence issues (File formats Level 3)	No			No	No		Yes	No	Yes, as part of preservation planning model. Risks are based on knowledge base that is shared between customers and are documented there. Rosetta can run and scan the content for risks. Provide reports to customers. They can then take action to mitigate like migration or obsolescence.
Perform format migrations, emulation and similar activities as needed (File formats Level 4)	No	No.	Yes.	No - not today, but up for discussion.	Could. but do not.	No	Through archivematica	No	Yes, provides the platform to so and customer should decide which preservation action to take.
		No.	Yes, standard with product			No			

URL	MetaArchive <a href="http://metaarchive.org/">http://metaarchive.org/</a>	DuraCloud <a href="http://duracloud.org/">http://duracloud.org/</a>	Preservica <a href="http://preservica.com/">http://preservica.com/</a>	DPN <a href="http://dpn.org/">http://dpn.org/</a>	APTrust <a href="http://aptrust.org/">http://aptrust.org/</a>	Chronopolis <a href="https://library.ucsd.edu/chronopolis/infrastructure/index.html">https://library.ucsd.edu/chronopolis/infrastructure/index.html</a>	Arkivum <a href="http://arkivum.com/">http://arkivum.com/</a>	Texas Digital Library	Ex Libris Rosetta
<b>Functionality</b>									
<b>Setup and Configuration</b>									
Installation	Members hosting a server storage node are provided instructions and support to setup server according to technical specifications to connect to network.	Customers / users setup account and can then utilize web dashboard to manually add / ingest content or download and install DuraCloud Sync tool to automatically ingest content.	Hosted "Cloud Edition" service requires no install for main software (see ingest for details on other local software options). Enterprise Edition requires local server and storage (eg Windows / Linux servers, Network Attached Storage, etc) and default MySQL database setup for metadata. For on premise version, can choose from a number of other databases as well: postgres, oracle, etc.			No installation needed - just needs to be accessible via ssh or via DuraCloud	No installation needed, bu arkivum sends hardware (server) for customer to install	Yes. duracloud.	
									Yes, do installation for the customer.
<b>Content</b>									
Supports all file formats and/or content types	Yes	Yes, all file formats and content types are supported	Yes, but users can customize file format requirements and policies	Yes	Yes	Yes	Yes	Yes	Yes.
Supports all metadata schemas and structures	Yes	Yes, No specific requirements for metadata schemas and/or structures	Yes	Yes	Yes	Yes - utilizes BagIt and recommends supplementary collection data to be included.	Yes	Yes	Dublin Core is primary metadata schema. Others can be added as "source" metadata. Logical and physical structmaps can be added to the content.
Supports large files (e.g. audio / video)	Yes, but files may be broken into smaller chunks	Yes, files that are large will be transferred as chunks. No limit to file size.	Yes	Yes	Yes	Yes - currently working with large data archives	Yes	Yes--maybe 5gb.	Yes.
<b>Ingest</b>									
Ingest process	1. Public live web-based content is crawled and ingested via LOCKSS plugins that are setup with specific parameters to automatically ingest content from repository websites (e.g. CONTENTdm, DSpace, Digital Commons) 2. Non-public content is made available to network on web server in simple directory listing (as BagIt bags if preferred)	Content can be added manually via drag and drop to web dashboard or automatically via the DuraCloud Sync Tool <a href="https://wiki.duraspace.org/display/DURACLOUDDOC/Getting+Started+with+DuraCloud">https://wiki.duraspace.org/display/DURACLOUDDOC/Getting+Started+with+DuraCloud</a>	Users can: 1. Upload content directly via web dashboard 2. via locally installed SIP Creator 3. via locally or network installed Transfer Agent 4. via CE Bulk Upload Service	DuraCloud software used to upload content		DuraCloud software used to upload content. Upload only via the UCSD node.	Customer moves files onto network file share. Perpetua/Archivematica users gor through AWS	GUI interface for uploading 1 item at a time through duracloud installation. OR also desktop client that syncs to system from a folder. OR command line that pushes from server to duracloud	Support manual ingest with web-based interface and semi-automatic ingest using csv, xml, oai-pmh harvester and bagit. Provides also deposit APIs. Once content is in the system it goes through a set of processes including decomposition, virus scanning, fixity checks, format identification, technical metadata extraction, risk management, enrichment processes, and curation and assessment processes.
Supports ingest of BagIt bags	Yes, via LOCKSS plugin designed to ingest BagIt bags setup with a specific MetaArchive profile	Yes, but no specific info about Bag requirements. See them as just another file.	Yes	Specific requirements for configuring BagIt bags for ingest <a href="https://docs.google.com/document/d/1JqKMFn9k6tMAAE0GQr6LZPqNw8Qub1TouUXQZQU/edit">https://docs.google.com/document/d/1JqKMFn9k6tMAAE0GQr6LZPqNw8Qub1TouUXQZQU/edit</a>	APTrust uses the bagit spec. Partners bag their o	Yes - specifics available to users	Yes. Supported by Archivematica by perpetua and so does the archiving service	Yes, but only for DPN ingest	Yes.
<b>Storage</b>									
Multiple copies	Seven copies for all membership levels	Most subscription plans include two copies of content stored on two different cloud storage providers. Subscriptions plans for DPN and/or Chronopolis would include 3-4 copies total. <a href="https://wiki.duraspace.org/display/DURACLOUDDOC/DuraCloud+Storage">https://wiki.duraspace.org/display/DURACLOUDDOC/DuraCloud+Storage</a>	Cloud edition includes storage of one copy in Amazon S3 or Amazon Glacier. Enterprise Edition included options for local storage, and connector to Amazon S3, Glacier or Microsoft Azure	Three copies		Three copies	Three copies (Two UK stored data copies accessible online; One UK stored copy held offline with a third party ESCROW data holding company)	Recommend use of glacier and S3, so 2 technologies and 2 locations. If you do both, you should have 6 copies, but it is abstracted so they cannot see it. If they are using DPN it is different.	Responsibility of customer. Can use whatever storage they like and define the required copies.
Geographic distribution of copies	Seven copies are distributed among multiple membership locations, including internationally	Most subscriptions plans include at least two copies that are geographically distributed, but details would depend on cloud storage provider locations.	Minimal. Cloud edition with Amazon S3 has option for copies distributed up to 10km apart. Enterprise Edition has more options for distribution by using multiple cloud storage services. No limit and can use any storage option: tapes, AWS, Oracle, on premise, etc.	Distribution via replication nodes	6 total	Distributed geographically among partner sites.	All stored in UK. Distributed in that one copy is held with third party company	west coast glacier and east coast S3.	
Regular fixity checks and monitoring	Yes, LOCKSS software includes regular automatic fixity checks and verification via voting and polling procedures	Yes, but details including frequency and mechanism unclear <a href="https://wiki.duraspace.org/display/DURACLOUDDOC/DuraCloud+Features">https://wiki.duraspace.org/display/DURACLOUDDOC/DuraCloud+Features</a>	Yes, files checked on an ongoing basis.		3 West coast, 3 East coast in a combination of S3	Yes - all data in the system undergo integrity monitoring using the Audit Control Environment (ACE)	Yes, monthly "checks and maintenance updates" and "annual data retrieval and integrity checks"	currently-- every 6 months on S3	Customer's responsibility.
Hardware / infrastructure	All members (except for Preservation members who choose option to pay technology fee) purchase and host server storage node infrastructure to run LOCKSS software and replicate other member's content. The implementation of this server is flexible, but must meet current technical specifications. Additionally, a web server (local or cloud-based) may be needed to stage content and make available for ingest into the storage network	Hosted service based on multiple cloud storage service providers. Run primarily on AWS but also have storage options from other vendors.	Cloud edition includes hosted infrastructure. Enterprise utilizes local infrastructure with connectors to cloud storage services. There are no specific requirements for choosing cloud storage over another option for enterprise version.		Roughly every 90 days.	Hosted infrastructure via DuraCloud. Each location stores data on spinning disk.	"local" cloud hosting or managed service option	hosted via AWS.	Any storage can be used by and connected to Rosetta using the Storage Abstraction Layer.
					S3 is AWS's spinning disk, Glacier is not known. U				
<b>Security</b>									ISO 27001 certified
	All member server caches communications are SSL encryption. Server caches setup include firewall and port settings to restrict access only to other servers in the network	Content security based on cloud storage service provider protocols (e.g. Amazon, RackSpace). All content required to flow via https so it is all encrypted. Application also requires login and access control settings.	Details unclear beyond access roles and rights. All users must authenticate with user name/password. User account is set up with series of roles which is equalized to security tags. Users can only see what they are allowed to based on their roles and security tags and can be as granular as file level permissions.		AWS provides data integrity and siloing so that dat	Dark archive that is password protected. Data at es	File encryption with customer supplied encryption keys	that which is inherent to Amazon, SSH, come back to this via email	
<b>Access</b>									
Restricted authenticated access	Only designated system administrators have user accounts for member server caches. No member is permitted to access another member's stored collections. Login pages are only accessible to the host Member institution and the MetaArchive central staff. SSH is required for remote access.	Access control for users is managed via the DuraCloud Management Console. Can also set access controls on users and groups of users. <a href="https://wiki.duraspace.org/display/DURACLOUDDOC/DuraCloud+Security">https://wiki.duraspace.org/display/DURACLOUDDOC/DuraCloud+Security</a>	User roles and access rights can be managed at collection and individual file level				Yes	Yes.	
Member / customer initiated content restoration	Members submit request to MetaArchive central staff who establish a secure connection to a member's LOCKSS server that has copies of the requested content. An uncompressed ZIP package is constructed and made available for the member to download	Users utilized Retrieval tool to download content to local environment <a href="https://wiki.duraspace.org/display/DURACLOUDDOC/DuraCloud+Retrieval+Tool">https://wiki.duraspace.org/display/DURACLOUDDOC/DuraCloud+Retrieval+Tool</a> . For DuraCloud Vault there is a user initiated restore from either DPN or Chronopolis.	Universal Access module allows users to search, find, and download publicly available content. Bulk download / restoration details not available. Many different levels of accessibility that can be implemented including user defined restrictions.		Through the APTrust API.	Yes	they just copy files back out through fileshare. If they are using Archivematica they can get IPs out from there.	it can be, through duracloud interface, bu through TDL for S3 and Glacier	Yes, either via internal authentication or integrated with external authentication (e.g. SAML, LDAP, others)
<b>Integration with other systems</b>									
		Can be integrated as backup for DSpace, DSpace Direct, and Archive-It. Archivematica, DPN, Chronopolis, REST API that allows anyone to write an integration. Client tooling for the REST API in Ruby and Java.	Supports workflows to automate the bulk ingest of exported DSpace, PaaS/Perfect, CONTENTdm, SharePoint, Outlook and Gmail package and advanced Website harvesting. Also supports integration with catalog systems including ArchivesSpace, Axiell CALM and AdLib for data management.				CRIS and publishing services such as EPrints, DSpace, Pure, Archivematica, and Figshare <a href="http://arkivum.com/integrations/">http://arkivum.com/integrations/</a>	DuraCloud is stand-alone, goals for 2017 is to integrate more. Just hired services manager who will start working on strategy for integration	Yes, OAI-PMH - publishing and harvesting. APIs, SRU and more. Integrated with LMSs such as Alma, Aleph, Voyager, Discovery systems such as Primo, Summon. Archival systems such as Ad Lib. Collection management systems. Many others. Information on APIs and integration points is available in the Developer Network - developers.exlibrisgroup.com/rosetta.
					Any system since the main point of contact is the <i>Archivematica</i> (through DuraCloud), DPN				