GeoNetwork Development Task List
[DRAFT @ 11/01/2008]

Task	Issue	Raised by	Assigned to	Priority	Due	Status	Category	Description & comments
1	Create, Retrieve, Update and Deprecate (CRUD) functionality for ANZLIC Metadata Profile	JH	ANZMET	Low	?			GN2.1 has a mef file that deals with deprecated records, could also be moved to a category "archives" where they are not searched. Solutions need to be discussed by MET users (anzlicmet-l). SP – 1 day research and then revisit outcomes for coding – low priority initially but other components depend on this – broader research problem of versioning – how do versions of metadata records get managed when the UUID is the indexing column in the database (for example)? How do we cope with the problem of having a published record and a working copy in the same GeoNetwork?
2.1	Validation of ANZLIC metadata (Part 1)	JH	BlueNet	High	2008-01			schematron-report.xsl which is ISO equivalent. Integrate an XSD validation report tool which produces an HTML report for display and review. 1 day research (probably xmllint?), 2-3 days integration. High priority for MET. Have a look at Saxon to see if we can get better reporting by switching on different.
2.2	Validation of ANZLIC metadata (Part 2)	JH	GA	High	2008-03			Develop more informative diagnostics from Schematron.
3.1	Advanced search options similar to existing options on the Australian Spatial	JH	ASDD	High	2008-03			GN indexes fields from the metadata record using xsl files in web/xml/search. The user interface can then be modified to include options to search these fields.
3.2	Advanced search options similar to existing options on the Australian Spatial Data Directory (Part 2)	JH	BlueNet	Medium	2008-01			More research is required on Lucene to ensure that (a) it can carry out the searches required by ASDD advanced search and (b) the syntax of these searches can be explained to users. Identify the search terms Needs and issues document about the searches and how Lucene can to those searched. Create issues paper for ANZMET discussion.
4	Topic category, ANZLIC Search words, free text search, free text search in different fields, date search, spatial search (e.g. by Geographic Extent Name (GEN), by Geographic Bounding Box, interactive map)	JH	ASDD	High	2008-03			Create interface and Lucene configuration. GN 2.0.3/GN2.1 problems with Lucene search; e.g. hyphenated text doesn't work (retrieve other search issues from BlueNet GeoNetwork list), GN2.1 allows all additional fields as specified (GN2.0.3 does everything except spatial search by interactive map): (a) Additional from ASDD mock up: Lots of things in here for http://asdd.ga.gov.au/asdd/test/ASDDsearch.htm. (b) Free text anywhere in the metadata document. (c) Multiple list to choose which hierarchy level to search (should the default be all or dataset and series?). (d) Multiple list to choose which profile for which the returned metadata complies with in the search. If many profiles are selected then the available fields that are presented for advanced search is determined by the fields that are common to all the selected profiles. (e) Free text search on some other character string elements, e.g. abstract, title, fileIdentifier. (f) Select a spatial area by: -- Enter latitudes and longitudes in four HTML text entry areas for the bounding box -- Select a bounding box via lists of Geographic Extent Names, or -- Draw a bounding box on the map image. In the case of the last two options coordinates that represent the selected area will be entered into the (g) Select ANZLIC Search words. (h) Select ISO 19115 topic Categories. Client side code (JavaScript or Xforms) that automatically sele (i) Select which ASDD nodes to search. (j) Select presentation type; i.e. HTML, XML or SUTRS. (k) Date search on dateStamp, metadata date, beginning date and / or ending date.
5.1	Remote search of existing nodes using the information retrieval protocol Z39.50 (Part 1)	JH	GeoNetwork list	?	?			Remote search was left out of the GN2.1 search interface (and broken in GN2.0.3).
5.2	Remote search of existing nodes using the information retrieval protocol Z39.50 (Part 2)	JH	BlueNet	High	2008-01			BlueNet fixed the 2.0.3 version and added capacity to return results in HTML. HTML search facility needs to be modified so that it is on demand and this plus the rest of the functionality from BlueNet 2.0.3 needs to be added to GN 2.1 - 2 days research and fix - SP to port and commit to the repository - JH to send SP example Z39.50 searches generated by Z39.50 clients, SP to send Zserver port. Medium priority for ASDD.
6	Display remote node's HTML for full metadata	JH	?	?	?			Refer to 5.1 / 5.2

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7.1	Remote search of Web Catalogue Services (CSW) (Part 1)	JH	BlueNet	?	?	Complete		GN to CSW. A separate test client exists in GN2.0.3 and GN2.1. GN2.1 also supports CSW server version 2.0.2 (it is the reference implementation for OGC) – but CSW server in GN2.1 does not support spatial filters apart from the BBOX – all other spatial filters are not yet available. Curiously the GN2.1 CSW server requires spatial filters terms to be specified using Dublin Core, e.g. dc:title which are then mapped to ISO equivalents. CSW is still a moving target for profiles. Low priority for ASDD, higher priority for the BlueNet MEST because the Oceans Portal supports CSW. SP/BlueNet to follow up. Who? C2.1 does this but its default record is in DC (Yeeww) Priority? There but really useless for complex searches.
7.2	Remote search of Web Catalogue Services (CSW) (Part 2)	JH	OGC	Low	?			We would be better off using a better format for searching, e.g. Z39.50 or a better profile for CSW.
8.1	Mouse over ISO 19115 definitions and hypertext links to the ANZLIC Metadata Profile Guidelines for each element (Part 1)	JH	BlueNet	High	2007			This will work in 2.0.3 but in 2.1 mouse over has been consumed for display of geonetwork help – better to adopt the approach that the help file (which also supplies information on conditional and mandatory elements) should be part of a profile (see also 15) – if a profile supplies help and conditionality for an element then that is used by GN otherwise we fall back to the standard ISO help file. For the ANZLIC profile connections to individual pages of the metadata guidelines document (which supplies help etc) can't be done until the guidelines use consistent referencing for the html pages (shortName) and the content is decent/settles down – technical part is straightforward, guidelines are the problem – high priority for the MET, SP to follow up once the MET moves to 2.1 and the ANZLIC metadata guidelines document settles down. NOTE: Reliant on ANZLIC making guidelines available in HTML format.
8.2	Mouse over ISO 19115 definitions and hypertext links to the ANZLIC Metadata Profile Guidelines for each element (Part 2)	JH	GA	High	2008-03			Once Task 8.1 complete then discuss on GeoNetwork list about online help for interface and use 2.1 existing docbook.
9	OGC Web Services Common client	JH	GeoNetwork discusison list	Low	?			There are problems with parsing different getCapabilities statements (e.g. for use in ISO 19119 service descriptions and in the web map client InterMap) but web services common standard may help if vendors will follow – ASDD will take the standards approach – not compliant means not supported – web map common – getmap, getcapabilities, getfeatureinfo (identify) from WMS (WFS?/WCS?) – investigate web map commons to determine specification – low priority for ASDD and MET – SP to follow up (believes that some OGC suites already do OWS e.g. Deegree 2.1).
10	Choose WMS to display on web map client and edit layers	JH	ASDD	Medium	2008-03			Can do already in 2.0 and 2.1 but it needs customisation to meet the ASDD requirements. ANZLIC/OSDM to find resources (funding and people). Layers managed as web map context standard (is in Intermap in both 2.03 and 2.1).
11	Save / load a map	JH	ASDD	Low	2008-04			Need access to Intermap web map context – see 10 – the ability to email a map link from InterMap already exists in 2.1 and SP understands that the ability to load a web map context is also present in 2.1 or will be released in the maintenance release soon. Wait for GN2.1 and scope – saving the web map context is easy.
12	Display full metadata record in another window	JH	GeoNetwork dicussion list	Low	2008			can be done now – simple html customisation – high priority for the ASDD – 2.1 does not support this as easily indeed it is planned to display the full metadata record using a “blind” Ajax widget. Some customisation will be necessary for 2.1 – ANZLIC/OSDM to provide resources once the MET moves to 2.1?
13	Display download and graphics in other windows	JH	BlueNet	High	2008-01			Already available in the MET tool/2.0.3. Need to investigate whether this is available in GN2.1. If not available then needs porting from 2.0.3 or coding. SP to investigate.
14	Get copyright statements from metadata and show on printed map	JH	ASDD	Low	2008-04			resourceConstraints from metadata record are added as mandatory. GN2.1 has export to PDF with text box option to add some kind of constraint on the data shown in the pdf - but there is no automated connection with the resourceConstraints element in the metadata record. Medium priority for the ASDD. ANZLIC/OSDM to provide resources.

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15	Create different profiles	JH	GA & BlueNet	Low	2008			Defined components of a profile implementation are: -- 19139 XSDs -- codelists -- profile extensions as XSDs (eg. mcp:revisionDate of mcp:MD_Metadata) -- restrictions of datatypes by presentation (e.g. Code lists to replace character strings – using picklist) -- schematron does restriction of obligation, element removal, conditionality and cardinality -- presentation XSLs and help file to map element names to profile names (e.g. mcp:revisionDate to “Revision Date” for presentation) and provide element help and conditionality info -- transformation XSLTs to other profiles – ANZLIC being mandatory -- mapping to GN search fields XSLT -- profile needs to be downloadable from the profile registry – plug in to GeoNetwork on demand – the MEF (metadata exchange file) format provided by 2.1 (which is basically a zip archive and xml file describing contents) could be used to store profiles in the profile registry. GN2.1 already understands MEF and it is quite extensible and well known so using it would be a possible shortcut. Resources SP – medium for MET, extreme for the MEST, low priority for ASDD Need to investigate XSLT 2.0. Need GeoNetwork discussion.
16.1	Register profiles and codelists (Part 1)	JH	?	High	2008-01			ASDD priority – use metadataextension element to describe extended elements – one metadata record per profile – change to codelists does not constitute a profile but more research by JH with at ESRI representative on ISO TC. SP indicated the diffierent components of a profile from the GN perspective in 15 – the registration of profiles will need to take this into account. SP to supply more info when next version of MET integrates ANZLIC, Defence and Marine profiles (version 1.1). Who? Metadata discussion list about what hierarchyLevels to add to scopeCode?
16.2	Register profiles and codelists (Part 2)	JH	GeoNetwork & BlueNet	High	2008-01			Ancillaries for GeoNetwork implementation of the profile. Discuss on lists.
17	Choose profile to determine which metadata to search for	JH	GeoNetwork discussion list	Very Low	2008			metadataStandardName and metadataStandardVersion will hold the profile name and version – we also need to get a CSW 19115 specification which can be retrieved by the user interface to build profile queries? - rules for mapping and interfaces are needed – user interface needs to be able to retrieve this info (?) - this is a considerable problem – it could be solved if profiles were available as plugins to geonetwork and could be downloaded from the profile registry as required (See 9th dot point above in 15). See 15 and 16. SP to provide more info with version 1.1 of the MEST/MET.
18	Present advanced search interface depending on chosen profile	JH	?	?	?			Refer to 16.1 & 16.2
19	Display extents (Bounding Box or Bounding Polygon) and link to metadata in information area	JH	ASDD	Very low	2008			can be done but using extensions to web map servers such as UMN MapServer – low priority for ASDD – ANZLIC OSDM resources. Investigate OpenLayers GeoNetwork discussion.
20	Harvesting metadata from other tools	JH	GA & BlueNet	High	2008-03			GA (& BlueNet) to investigate and discuss on ANZMET list. Configure possible scenarios: Validate on harvest – apply stylesheet for systematic areas and/or dump failures to group that has no public access – considerable work has been done in 2.1 on harvesting and strategies for coping with problems like unknown schemas and groups that don't exist have been added – research and discuss with GN User Group to determine whether these strategies are appropriate for the ASDD and the MET - high priority for MET – SP.
21	3D presentation like Google Earth (can use WorldWind Java applet)	JH	ASDD	Very very low	2008-2009			OGC web perspective service? - work done by GA and presented at the SSI 2007 (D Beard?) needs to be investigated to determine whether it is applicable or not - priority low – research project (GAV in GA?)

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22.1	Create list of available WMS using 'services' metadata (Part 1)	JH	?	Medium	2008-2009			services search as a "category" – 1. hierarchyLevel = service and srv:?/protocol = web map service 2. when click on layers, view layers from getcapabilities for adding list of layers to Intermap Layer list – 19119 services metadata schema added to MET – choose srv:SV_ServiceIdentification instead of MD_DataIdentification – needs testing in MET 1. SP to supply resources for 19119 services description and later to code a utility which captures this info from a getCapabilites statement. Check GeoNetwork list (Francois) Who? Whoever (GA, ASDD, BlueNet) gets to it first. Then discuss on ANZMET list
22.2	Create list of available WMS using 'services' metadata (Part 2)	JH	GA	Low	2008/2009			Search metadata records that have protocol contains OGC:WMS and display list of layers for addition to the Intermap layer list.
23	Translation to and from different profiles using XSLT	JH	GeoNetwork	?	2007	Complete		These converters should be supplied with the registered profiles. Ability to do it is available. Need to test the translation via exports.
24	Architecture	JH	?	High	2008			Who? Use these projects to develop the method for GeoNetwork development and then invite others to participate in this process. OSDM to coordinate an Architecture meeting.
25	Use XML objects in database	JH	?	Very low	?			Advantages and disadvantages of using this approach need to be worked out. There doesn't seem to be a compelling reason as yet to change the GN approach of storing the metadata in a CLOB or large text column and leaving the indexing and searching to a file copy created for Lucene. Tests from Italy seem to indicate that the Lucene approach is fast for a few million records. Most of the reasons given on the net for using XMLDBs seem to be rooted in the need to simplify complex relational structures created for data that doesn't fit the relational model. Metadata is one of these but GN doesn't try to map the metadata to a relational structure so the database is just being used as a repository. Net wisdom also says that most current XMLDB approaches are not yet mature (e.g. http://cafe.elharo.com/xml/the-state-of-native-xml-databases) with reasons given that XQuery (which would be the preferred XML based query method) is not yet supported by many offerings. Popular open source databases like mysql are only just adding XMLDB functionality. Need to demonstrate the benefits of using an XML object (e.g. Spatial polygon queries) and investigate the effects on GN.
26	Use XLINKs to resolve reusable metadata components	JH	GeoNetwork discussion list	?	?			XLinks are the XML equivalent of the symbolic link in the UNIX filesystem. When you parse an XML document and strike an XLink, you follow the XLinl (or resolve it) and parse the content you find at the end. There are maintenance and update challenges here and it is certain that the concept must be used carefully to avoid these challenges – see 26. SP is looking at a limited use of XLINKs to support the BlueNet requirements for dynamic access to metadata returned by data acess services such as OPeNDAP. More research required and discussion on different strategies for coping with maintenance and update challenges. See Task 26(?). This is a great idea! But there may be management problems. Initially there needs to be a set of rules on how XLinks will be processed and edited. Suggest some use cases for the use an resolution of XLinks to the discussion list.
27	Resolve the XLINKS on presentation and before indexing	JH	SP & JH	High	2008-01			Sort of covered by subtemplates on entry in 2.1 (not implemented as the developer of the concept was unable to finish it in time), extensive ramifications for many bits of GeoNetwork, e.g. Copy on update?, Lucene indexes need XLink resolution, XLinks could be seen as a kind of normalisation for XML data representations but the challenges need careful consideration – see 25. Ask GeoNetwork discussion list what are the barriers to XLink and then try to determine rules to overcome these barriers.
28	Use XFORMs for presentation of metadata CRUD	JH	BlueNet	High	2008			This would appear to be an excellent alternative to the problems and work arounds that are currently being used in the GN editor which is based on HTML forms. The unknowns are whether the current implementations are mature (e.g. Chiba), when native browser implementations will be available and whether XForms supports the complex schema constructs found in XSDs such as those supplied with ISO19139. SP is looking at this as he has taken on some degree of responsibility for the editor in GN2.1 – including making it work with the complex 19139 (inc. GML schemas) and adding Ajax techniques. It is possible that XForms could be a shortcut because the current implementations such as Chiba use Ajax/javascript – the unknowns need to be checked. XForms generator in eclipse but can it handle 19139 XSDs? Could we use Orbeon or Chiba. High priority as there needs to be an alternative to the limited existing HTML form (XForms, Applet, Swing or stand alone).

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29	Use CSW for searching rather than Z39.50	JH	JH	Low	?			Benefits and downsides of CSW are not clear, more research to be conducted by JH after trip to China in November. Is there CSW client in GN? Not for remote searching. JH requested information about CSW and Z39.50 from Uwe Yoges. Once reponse received JH to forward informaiton. Low priority for ASDD because GN responds to Z39.50 searches and that is what is currently used by ASDD nodes.
30	Speed it up (don't use XML for everything)	JH	GA	High	2008			Alternatives to XSLT for presentation e.g. XForms – need to offer speed advantages and ease of implementation – see Task 28 for more details. GA to investigate why it is slow on GA environment and tuning GN to suit.
31	Move to ISO 19139 implementation and adopt GeoNetwork v2.1 when stable	SP	BlueNet	Very high	2007	Complete		Implicit in this is a port of the features in BlueNet's 2.0.3 to 2.1. Parsing ISO 19139 XSDs for the editor. Done GN uses 19139 XSDs and will be available to local branch when published.
32	Checks and fixes to element cardinality, default values, etc	SP	BlueNet	?	?			MCP related - SP/Bluenet. See Task 31.
33	Record locking improvements	SP	BlueNet	High	2008-01			Multiple editors on the same record – lock row in table – this is not fixed in GN2.1.
34	Context sensitive help: add context to repeated elements, e.g. ResponsibleParty in Citation versus ResponsibleParty in Metadata Contact	SP	ANZLIC & OSDM	Very high	2008			ANZLIC Metadata Guidelines doesn't include contextual information. Major effort to write this content for minimum gain. As user knowledge of the metadata standard increases there will be less need for this information. Refer to Task 35 for a workable solution. ANZLIC to address via education and outreach (E&O). OSDM will start the process for Australian Government agencies.
35	Help records and element titles linked to ANZLIC Metadata Profile Guidelines	SP	?	?	See 1.8	In progress		Dependent upon completion of ANZLIC Metadata Guidelines and consistently referenced HTML pages (by short element name).
36.1	Metadata record owner concept (note: added in v2.1) (Part 1)	SP	?	?	?			Concept is useful and scaleable in GN2.1. Nice to have a history of owners (usernames) – this is not in 2.1. Metadata owner, user and group admin tools in GN are somewhat limited. There are three scenarios. NOTE: Needs to be discussed more broadly so that technical hooks can be provided for different organisational business rules. Scenario 1: use basic user admin facilities provided with GN – for very small organisations.
36.2	Metadata record owner concept (note: added in v2.1) (Part 2)	SP	BlueNet	High	2008-02			Scenario 2: federated LDAP access within the institution (e.g. Tasmanian Department of Primary Industries and Water uses a federated LDAP which combines username/password info from DPIW Active Directory (Windows), Unix users/password/groups from an FTP server and
36.3	Metadata record owner concept (note: added in v2.1) (Part 3)	SP	BlueNet	TBA	2008			Scenario 3: cross institution federated access via national access federations such as the Australian Access Federation (AAF/MAMS). These are still some way off (2008?) but tests are underway at a few participating Bluenet instititutions such as the Bureau of Meteorology. Discussion or report on ANZMET list. Priority determined by AAF progress.
37.1	Metadata moderator concept—Record submitted for approval, email alert on approval	SP	GA	Low	2008			work flow for the moderator concept in GN2.1 – GN2.1 has User, Editor, Reviewer and UserEditor and Admin privileges in 2.1 – any user who is an 'Editor' can create a record but only they can see it – only a user who is a 'Reviewer' (and in the same group as the Editor) can actually publish the record i.e. make it available to the public. NOTE: (i) An 'Editor' can allow others in the same group to view and edit the record if they want. (ii) There is not concept of an email alert on approval by the editor which should be implemented. SP to follow up. GA to discuss on both lists and then submit a proposal.
37.2	Metadata moderator concept—Support for repeated UUID; published vs. working copy and deprecated records	SP	?	?	?			See Task 1.
38	Schematron development for content/business rules	SP	BlueNet	Medium	2008			business rules for organisations need to be coded as schematrons and included as a second validation button (labelled 'check business rules') – SP to add button and re-use existing schematron facilities in GN. Add to ANZMET v 1.2 (Local version of GN 2.1) and then discuss on GeoNetwork lists.
39	Inheriting or linking elements in the metadata	SP	?	?	?			Inheriting or linking elements in the metadata: 'copy-on-update' or update parent?; parent-child relationship during delete or harvest (?); Xlink. Refer to Task 27.
40	Browser 'Back', 'Forward' and 'Refresh' buttons and session time out during editing	SP	BlueNet	High	2008			These still cause problems in GN2.1. SP to research and discuss if necessary with others on meanings for buttons. Refer to Task 28. Discuss about AJAX rubbish on GN list. BlueNet Research alternatives.

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41	Robust text entry e.g. pasting text into fields with 'illegal' characters such as end-of-line, etc.	SP	BlueNet	High	2008			Problem has arisen where users are pasting text into GN fields from Microsoft Windows and running into problems (e.g. Interface resetting, etc). High priority for both the MET and MEST because users often have metadata in Word/Excel documents and it's necessary for this data to be copied into the metadata record. A more radical solution would be to examine the emergence of XML Office formats and determine whether data in these formats could be XLinked into the metadata record where appropriate. It is possible that XQuery may make this kind of approach feasible at some time in the future. Who? Some one needs to research how to replaces Microsoft characters with UTF-8 characters. XSLT 2.0 is a possible solution.
42	Taxonomy helper: scientific name support	SP	Tony Rees (CMAR) via BlueNet	?	?			Thesaurus support in 2.1 is never going to support such a complex interface (indeed thesaurus support in 2.1 is little more than an interactive codelist/controlled vocabulary generator which is fine but not suitable for more complex thesaurii such as GCMD and scientific names). XFORMS may help with some of these problems but is again unlikely to be suitable for complex thesaurii such as the taxonomy helper. The current solution in the BlueNet MEST/MET for the Marine Community Profile is to use a helper application such as the GCMD keyword picker. Scientific name support will be via such an interface and will be a medium to high priority for the BlueNet MEST. A thesaurii application picker has been written for the BlueNet MEST.
43	Issues with Lucene searching resolved	SP	BlueNet	?	?			See Task 4. BlueNet will be working on this to solve and debug issues as they arise.
44	Multiple thesaurus support	SP	BlueNet	Medium	2008			Issue not resolved in GN2.1. See Task 42 for more detail and solution.
45	Temporal filter: problems with records that don't have an end date	SP	BlueNet & ASDD	High	?			This problem has taken on a whole new perspective since it was revealed that the current Lucene comparison for date-time fields does a string comparison and assumes these fields are all the same length. This is not valid because ISO 19139 introduced a choice of gco:Date and gco:DateTime for gmd:date (and other elements). Careful checking of what is currently done in GN will need to be made! Solutions such as the generation of an outlandish end date or begin date for missing dateTime elements will need to be worked in. This is a high priority for the MEST/MET and the ASDD because of likelihood of incorrect search results! SP and ASDD to discuss further as problem is investigated. NOTE: this problem may also be present in bounding box comparisons which are also done by string comparison. The problem in that case may be caused by additional decimal places in the longitudes and latitudes. See also Task 4 about checking Lucene search.
46	Display of search criteria at head of results	SP	BlueNet	High	2007	Complete		Priority for the MEST/MET. Resolved in 2.1 because the 2.1 interface keeps the search "blind" open when the records are returned so the user can see what they entered.
47	Results sorted by user chosen metadata field, e.g. gmd:editionDate	SP	?	?	2007	Complete		Limited capability to sort some fields provided in 2.1. Need to check what happens with this functionality when remote searching is being carried out (I wouldn't expect it to work). However remote searching is currently not available in the GN2.1 interface (it has been left out by mistake). SP suggests that the enhanced harvesting facilities provided in GN2.1 (including Z39.50 harvesting to be implemented in GN2.2) may provide a way in which this functionality can be used with records from remote sites, i.e. harvest the records from the site you want to search, index them locally in Lucene and then run a local search which provides access to the sort by chosen metadata field. Done limited fields to select 2.1 SVN.
48	Support for other coordinate systems based hierarchical grids (c-squares)	SP	BlueNet	Low	2008			c-squares is a useful adaptive grid indexing system. Support should be added not just in the form of extent elements that allow specification of c-squares indices but also in searching for records based on their c-square indices. This would require changes or additions to the Lucene comparisons currently made on extent elements. Similar changes including the possible addition of spatial predicates to Lucene searches may be necessary with the enhanced support for CSW searching mentioned in Task 7. Low priority for the MEST/MET.
49	Option to view 'Minimum', 'Core' and 'Full' metadata record	SP	BlueNet	?	2007	Complete		Minimum' and 'Core' records are supported via templates. 'Full' metadata records are supported by the "All Elements" tab. A change could be introduced in the "My Elements" section which would allow the user to select a template and then use the elements in the template to display the content of a record. This will be developed further by the BlueNet MEST/MET which needs to provide a simple edit/view interface.
50	More conversion options on record display: DIF, ANZLIC, etc.	SP	?	?	?			Expected to become available with the proliferation and increased understanding of profiles and XSLT. Priority for the MEST/MET are conversions to and from ANZLIC.

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51	Batched export/import to DIF, ANZLIC, etc	SP	?	?	?			NOTE: gast tool in GN2.1 will assist. XSLT convertors need to be added to gast to support the different conversions. Individual record conversions can be done in the MEST/MET now – refer to Task 23. Available in GN2.1.
52	Remote data file download (note: possible now via scp)	SP	BlueNet	High	2008			Resources may only be downloadable by protocols such as scp or through data access services (e.g. OPeNDAP or FME). Access to these services including any security layers may need to hidden from users. Priority for the MEST/MET, especially OPeNDAP although it may make more sense to provide a link to a subset tool such as the OPeNDAP Data Connector (ODC).
53	Tool to harvest metadata and dataset for hosting agencies	SP	BlueNet	High	?			GN2.1 has the MEF format which (being a zip archive with an XML info file) can be used to bundle up metadata and ancillaries (including thumbnails and datasets) for export. GN2.1 also has an import facility that can then be used to import these. There are also many more harvesting capabilities in 2.1 – it is likely thought that for large datasets these tools may need to be enhanced and they may need to work with other protocols such as those specified at Task 27. Priority for the MEST/MET. Available in 2.1.
54	SSL to protect usernames and passwords	SP	BlueNet	Very high	2008			NOTE: GN2.1 adds password encryption and authentication against one LDAP directory (intended for single organisation). GN2.1 does add password encryption within the database and the application but it does not provide transport layer encryption provided by SSL. This is a high priority for the MEST/MET especially if the federated LDAP approach is used for external hosts.
55	Federated authority process (AAF) (note: use MAMS now)	SP	?	?	?			See Task 36.3. When? See above.
56	Global updates through all records in system by administrator, e.g. change name of organisation	SP	BlueNet	High	2008-01			Can be done by adding a service that applies an XSLT script to each record in a selected set.
57	Logs containing details of user searches: date/time, search terms, etc.	SP	GA		2008-07			Low priority for the MEST/MET. See GA requirements 2008-07.
58	Show and edit attributes of XML elements	Other	BlueNet	High	2008-02			Two possibilities: firstly there are a lot of attributes that can be applied (optionally) to gmd and gml elements – GN only ever displays the mandatory ones and only in some cases(!). There is a schema suggestions file though which can be used to force GN to add a mandatory attribute. This has been enabled in the MEST/MET version 1.1 – see web/xml/schemas/iso19139/schema-suggestions.xml for example. The second possibility (which is more robust) is to examine or adopt the approach taken in an interface designed for editing XML documents such as that provided by XFORMS. SP is investigating XFORMS as part of the GN editor work. See Task 28 for more details.
59	Plain language messages for diagnostics, i.e. error messages	Other	?	?	?			A requirement for schematron processing especially for the business rules schematron processing. Needs to be raised in priority but the current XML oriented interface requires some degree of XML awareness. Probably won't happen until a more user friendly interface is adopted – see Task 22. When? See above 1.2
60	Support community profiles and mapping between profiles	Other	?	?	?			Marine coimmunity and defence community profiles have been added to version 1.1 of the MEST/MET. Process is now well understood and attempts to use the base iso19139 support wherever possible to avoid duplication and management problems. As more profiles are developed the need for a plugin approach to profiles and a profile registry (see Tasks 15, 16 & 17) will become more urgent. Mappings between profiles need to be managed by interested parties with oversight from the profile registry manager? When? See above.
61	Contextual examples in 'Help' documentation	Other	?	?	2007	Complete		Should be provided by the ANZLIC Metadata Guidelines. Examples provided by the standard are too simple. Examples provided by Ross Honeyman.
62	Support for ISO 19119 Geographic information—Services	Other	?	?		Complete		Present in the MET/MEST from version 1.0 but use version 1.1. Done in ANZMET 1.1.
63	Display restricted view of the ANZLIC Metadata Profile (e.g. view 'minimum' or 'core' elements only)	Other	?	?				see green section 22. When? See above.
64	gmd:series and gmd:describes in ISO19139 metadataEntity	Other	JH	High	2008			gmd:series and gmd:describes in ISO19139 metadataEntity are wrong (?) and UML diagram figure 3 19115 – disabled temporarily – later investigate creating DS_Agggregate entities directly and including MD_Metadata elements. To be undertaken as part of the ISO 19115 review.

GeoNetwork Development Task List
[DRAFT @ 11/01/2008]

65	html way of navigating the parent/child hierarchy and through aggregationInfo	Other	BlueNet	Medium	2008			Need an HTML way of navigating the parent/child hierarchy and through aggregationInfo – low priority and not bothered talking about resources yet. Need to identify the linking methods.
66	GN categories should be mappable to ISO 19139 metadata elements as well as existing internal categories, e.g. HierarchyLevelName codelist or service elements, etc.	Other	ASDD	Low	2008			JH has examples of services and layers (actually called datasets) in the ASDD mockup which assume this concept. Categories should be resolved by a search. ASDD to investigate.
67	Indexing structure needs to be handle multiple/simultaneous requests to reindex following submits after editing	Other	?	High	?			Research – high priority for the MET and ASDD and .... everyone – SP to check - testing resources from CRC-SI. See above discussion on Lucene investigation.