 This version of the Clarifications document presents questions that were received as of 14 November 2014. Responses to these questions are provided below. Please send any corrections or additional questions to techdesk@opengeospatial.org.

Revision log:

Date	Name	Description
26 October 2014	Lew Leinenweber	● Initial Draft
27 October 2014 10:17	Luis Bermudez	● 2/ Q1,2 and 3
28 October 2014	Ingo Simonis	● 3/ Q1
29 October	Luis Bermudez	● Added link to AFX
29 October	Ingo Simonis	● 3 / Q2, 3
31 October 2014	Lew Leinenweber, Luis Bermudez	● New Questions/ Clarifications in General Questions (Q13-Q16), CCI (Q10-Q12), and UCR (Q5)
3 November 2014	Lew Leinenweber	● Geo4NIEM (Q2)
4 November 2014	Ingo Simonis	● 3/ Q5
5 November 2014	Lew Leinenweber	● Geo4NIEM (Q3)
6 November 2014	Ingo Simonis	● 3/ Q4, Q7 and Q13, 14
6 November 2014	Lew Leinenweber	● General Question (Q17)
7 November 2014	Lew Leinenweber	● Edit/updates to CCI Questions
12 November 2014	Lew Leinenweber, Luis Bermudez	● Updated CCI Q3 response
14 November 2014	Lew Leinenweber	General Question (Q18)

General Questions
CCI Thread Clarifications
Urban-Climate Thread Clarifications
Geo4NIEM Thread Clarifications
Sponsor-provided additions and corrections

1 General Questions

Q1. Can potential participants submit further questions by email?
- A. Yes, by 5 November 2014 to techdesk@opengeospatial.org. Each question will be reviewed and a response provided via the Clarifications document.

Q2. My organization is not familiar with the testbed process. What's the best way to navigate the RFQ?
- A. Please refer to the Bidder's Quick Start Guide section developed to welcome organizations such as yours to the process.
  http://www.opengeospatial.org/projects/initiatives/testbed11
  and,
  You can participate in to the webinar for an opportunity to learn about the process and ask questions
  https://www4.gotomeeting.com/register/287254487

Q3. My organization has never participated in testbeds or other OGC Interoperability Program efforts before. Will this impact our ability to win any work?
- A. For a listing of the evaluation criteria, refer to Section 5 Evaluation Criteria of the RFQ main body found here:
  https://portal.opengeospatial.org/files/?artifact_id=60887
- A. As you can see, prior participation in OGC initiatives is not a requirement for participation and is not an explicit evaluation criterion. Having said that, it definitely helps to have participated before (both to be familiar with the collaborative rapid prototyping and agile environment the testbed is about, and to be more "tuned" to the requirements that directly build on the results of prior initiatives).
- A. To best position your proposal, make sure you review the outcomes of prior initiatives and show clear understanding of the sponsor requirements and the relevance of your proposal to those requirements.

Q4. Should we expect 100% cost recovery for our work? Are we expected to propose a specific proportion of in-kind vs. cost-share?
- A. In-kind contributions are not required, but are one of the criteria in the evaluation of the proposals. The exact percentage depends on various criteria.
- A. Be honest about your proposed contributions to both in-kind and cost-share budgets. Further consideration of contribution and reimbursement leading to a final award will be determined during a period of negotiations with selected participants.

Q5. Can we submit a proposal if we are not OGC members at the moment?
- A. Application to OGC membership must be submitted with the proposal. Membership will need to be established prior to being invited to the kickoff.

Q6. Is Kickoff attendance required?

A. Yes, funded organizations must have a representative at the kickoff. GoToMeeting and telecon arrangements may be established to make the kickoff accessible to additional persons from the attending organizations.

A. The kickoff is a critical event to ensure a most successful initiative. For participants who have been selected to receive Cost-Share funding, attendance is considered mandatory. If a participant is selected and agrees to provide In-Kind only contributions, then in-person attendance may be a matter of negotiation leading up to the Kickoff. In all cases, in-person attendance at the Kickoff is considered the best opportunity to establish the team working relationships and coordination to achieve a most successful initiative.

Q7. Are travel costs to the kickoff reimbursed?

A. Not directly. The offers to selected organizations are based on the deliverables in each thread.

Q8. Can a participant propose against multiple threads in their proposal?

A. Yes participants can and are encouraged to propose against multiple threads (follow the response template).

Q9. Will only one organization be selected for each task or can multiple participants work on the same task?

A. Multiple participants can be selected for the same task.

Q10. Are the sponsors involved in the evaluation and selection process?

A. Yes, the sponsors are actively involved in the evaluation and selection process. That process as well as the evaluation criteria is detailed in the RFQ.

Q11. There are several deliverables in Annex A (https://portal.opengeospatial.org/files/?artifact_id=60888) that are designated as U (unfunded). Can you clarify what that means? Should we still propose against these deliverables?

A. For cost sharing funding, proposing organizations should focus on funded deliverables. You are encouraged to propose against unfunded deliverables, which would be treated as in-kind contributions to the testbed. Note that unfunded deliverables are certainly of interest to the sponsors, and are listed in the RFQ because they do play an important role in realizing the architecture.

A. In some cases, OGC may be still actively in discussions with other potential sponsors to cover the unfunded deliverables. If the status of a deliverable changes from unfunded to funded as outcome of these discussions, a clarification would be issued to that effect.

Q12. Where can I find the slides presented during the webinar on 30 October 2014 Webinar?

A. The webinar slides are available here: https://portal.opengeospatial.org/files/?artifact_id=60987 (be aware that these slides are being updated with the most current status leading up to the webinar, so we recommend, if you plan to download in advance, you wait until near the time of the webinar on 30 October 2014.)

Q13. (webinar) Is there funding for technologies that could assist with coordination tasks that any participant or sponsor could use? Specifically geospatial collaborative environments?

    A.   Funding has been provided by sponsors to address specific requirements that are associated with deliverables (e.g., Engineering Reports, services, schemas, etc.) as identified in the RFQ/CFP (Annex A and Annex B).

Q14. (webinar) Who is the sponsor for the GeoJSON req?

    A.   GeoJSON requirements appear in several requirements that associated with more than one sponsor and various deliverables as shown in the RFQ/CFP.

Q15. (webinar) Are there any incumbents working with the sponsors currently on these threads?

    A.   There are no incumbents. The Testbed will be comprised of participants selected via an open, competitive process for each testbed. There will be a number of participants who may be first-time participants in a testbed, while others may have been participants in previous testbeds.

Q16. (webinar) How much funding can be typically requested?

    2) Does the funding cover also indirect costs or only labor?

    3) Can a proposing team work with an international company (eg US and UK company) and how would both be sponsored (question is related to the possible restrictions of sponsors to provide cross-country funding)?

    A.   The amount of cost-share funding requests depends on the number and kind of requirements you propose to address and nature of your proposed contribution. See also Q4 for additional related clarification.

    A.   Bidders may choose to propose as a Team or as an individual organization. The choice is up to you. In the case for a Team, one organization should be designated as Lead for the contract, reporting and reimbursement purposes.

    A.   There are no restrictions regarding arrangements involving international teams. Teaming arrangements are left to the proposing organizations to decide. See also answer above.

    A.   Please refer also to other "General Questions" above for clarification of related questions.

Q17. (20141106) Is there any preference given to proposed OGC services in this testbed that have been certified to be compliant via the Compliance Program?

    A.   This RFQ requires deliverables of OGC services. Some of these services will be required to serve additional capabilities, and others would provide data to support the scenario and feed other components. In both cases, OGC compliant products are preferred over those that aren't. Compliant products are easier to integrate than non-compliant products, therefore facilitating the work to be performed in the testbed.

Q18. (20141114) Please explain and clarify the meaning of the information in the Finance spreadsheet template, and as it relates to the cost-sharing versus in-kind sheets in the workbook.

A. The information provided in the finance spreadsheet template is intended to show representative example entries applicable to these two sheets. You should replace the entries with specific entries for your proposed cost-share requests and in-kind contributions.

For the Cost-sharing sheet, you should enter the requirement you are proposing to support, the specific deliverable, the names or labor categories of personnel who will be assigned to work on the associated task, along with the labor rate and how many hours are projected for this entry and the equivalent funding request (cost) for each task.

Likewise, for the In-kind sheet, enter information about the requirements you propose to support and how many hours are projected for this entry along with the equivalent in-kind contribution amount (cost). In this sheet you should also enter estimated values for travel and hardware, software, data or other material in-kind contributions that you will make during the testbed.

2 CCI Thread Clarifications

Q1. There are multiple mentions of "Aviation Feature Schema (AFX)" and deliverables focused on AFX (an ER, a WFS). However, no reference for AFX and no GML application schemas are provided, which makes it difficult to consider a proposal for these deliverables. Can documentation and schemas be provided?

A. Here is the link to the manual, UML, XSDs and XML examples: https://portal.opengeospatial.org/files/?artifact_id=60990

Q2. In 4.2.18 (WFS 2.0 for Linked Data) the text reads: "The solution shall help fulfill the requirements detailed in sections:" without listing the sections. Could you clarify the requirements for this deliverable?

The deliverable 4.2.18 (WFS 2.0 for Linked Data) should help fulfill the requirements detailed in the following sections:

(1) 4.1.1.1   REST Interface
(2) 4.1.1.2   SOAP Interface
(3) 4.1.1.3   Encodings
(4) 4.1.2   Advance use of Linked Data and Semantic Enabling of OGC Web Services
(5) 4.1.5   Advance use of Social Media data

Respondents shall detail the capabilities that they can provide in the proposed WFS 2.0.

Q3.   About Architecture, REST, SOAP and GeoJSON.
       In 4.1.1.1 (REST Interface) it is stated "To test the architecture different
       implementations are required to implement the REST interface, including:
       WFS, WMS, …". However, the only service deliverables that explicitly
       requires a RESTful interface is "5.3.30 WFS-T 2.x with REST Interface and
       GeoJSON data delivery", which is in a different thread. At the same time, the
       diagram in 4.6.1 shows a "WFS 2.0 for Social Media" that is accessed via REST
       and SOAP, but is not in the list of deliverables. The same diagram also has a
       cross-thread "WFS 2.0" that is accessed via REST and SOAP, but it is unclear
       which deliverable this refers to. Could you clarify which services in the list of
       deliverables should support REST, SOAP and/or JSON

       Components in Testbed 11 do not require to implement REST, SOAP and
       GeoJSON. There are three deliverables related to these tasks (4.2.1, 4.2.3 and
       4.2.4) that require the investigation of the status of these technologies across
       OGC standards, towards proposing a recommended approach. If there are
       componentes at the Testbed 11 that implement REST, SOAP and GeoJSON
       they will be helpful to validate the recommendations the sponsors are
       looking for.

       Some components are cross thread. OGC Services (WFS, WMS, WCS, WPS,
       CSW and SOS) are requested across all threads. Respondents shall provide
       information about their capabilities the support REST and SOAP and
       GeoJSON.

       Responses with WFS 2.0 and other interfaces that supports SOAP, REST and
       GeoJSON will be preferred over those that do not support SOAP, REST and
       GeoJSON. [added20141111] The reason, as detailed before, is that the
       services will help provide better recommendations about how OGC can move
       forward with SOAP, REST and GeoJSON.

       The WFS 2.0 for social media is the same as the deliverable 4.2.18 (WFS 2.0
       for Linked Data).

Q4.   Part 1 of the NMIS specification ("Logical Model") doesn't appear to be
       available in any register at <https://nsgreg.nga.mil/>; only the XML schemas
       (comprising Part 2) are available there. Is the document available somewhere
       else?

   A.   Documents are available following this link:

https://nsgreg.nga.mil/doc/search/index.jsp?searchText=NMIS

Q5. What exactly is meant by the requirement (in Annex B, 4.2.13) for a catalogue
    to "Implement DoD Enterprise Search (ES)"? More than a dozen specifications
    are listed at
    http://www.disa.mil/Services/Enterprise-Services/Applications/Enterprise-Search
        Section 4.1.4 "Advance use of Catalog Services" specifies the requirements.
        Look at the section "Standard Features" in the following link:
        http://www.disa.mil/Services/Enterprise-Services/Applications/Enterprise
        -Search

Q6.   Is implementing the REST interface for CDR Search sufficient to support the
    thread scenario? If not, are any of the other DoD ES REST interfaces (Retrieve,
    Deliver, Query Management, Brokered Search) also required? However, we
    noted that CSW implementations are not mentioned in the last paragraph of
    Annex B, 4.1.1.1 (REST Interface)
        It should also implement CAT 3.0 with Open Search and/or CSW 2.0.2. See
        Section 4.1.4 "Advance use of Catalog Services"

Q7. In the last paragraph of Annex B, 4.1.4 the catalogue implementations to be
    evaluated are CAT 3.0 with Open Search and the CSW-ebRIM profile (CSW
    2.0.2). Would it be acceptable to extend a CSW-ebRIM catalogue with
    OpenSearch query capabilities?
        Sponsors are mainly interested in comparing the CSW 2.0.2 and CAT 3.0 with
        Open Search. There are 70 implementations registered and 20 compliant in
        the OGC implementation portal for CSW 2.0, versus CSW-ebRIM that has only
        been implemented by few organizations.

Q8. How are catalogue services expected to support semantic mediation? The
    bullet point on p. 12 ("Use of Catalogues and their role in semantically
    enabling the OGC architecture...") doesn't provide much guidance.
        The role if the catalogues to support semantic mediation is to be determine.
        There is a requirement to discover data from different locations. In the
        Testbed 9 (OWS-9) the catalog was searchable with a list of define list of
        layers required for the scenario. The layer name was linked to feature types.
        In Testbed 10 (OWS-10) the semantic mediation for conflation was done in
        part by the client and by the WPS. Both relied on a SPARQL (Semantic
        mediator) service.

Q9. Regarding the answer to Q6, does this requirement essentially entail an
    analysis that maps the "Standard Features" of ES to OGC catalogue
    capabilities? Or must the assemblage of IC/DoD specs actually be implemented
    alongside CSW interfaces?
        The priority is to implement the CSW interfaces. Priority 2 is to analysis the
        CSW interfaces by trying to implement IC/DoD requirements.

Q10. (webinar) Does the statement "The results of OWS-11 testbed will be delivered to several SESAR WP8/13/14 projects, as contributions to the definition and implementation of SWIM-enabled services and systems." imply a requirement to work with SESAR"

The participants work directly and report to OGC Staff. Sponsors participate in the meetings as an advisory role. There is no requirement to work with SESAR.

Q11. (webinar) Is the D-NOTAM effort envisioned to address only ground systems or will the aircraft solution be considered

The D-Notam requirement comes from the Aviation requirements section (4.1.8). The link to the D-NOTAM resources that will be used are in this link: https://drive.google.com/folderview?id=0BxlGN-YBj-q0dnFpMzBTUFBoM3c &usp=sharing

Q12. (webinar) The deliverable OGC Testbed 11 Symbology ER: Engineering report on advancing data and service discovery to demonstrate through OGC new and/or existing services the benefit of semantic mediation approaches in support of Linked Data Concepts. Is the description correct--no mention of symbology.

The ER will provide the work advanced in support for the requirement in section 4.1.6. It should contain:

1) A proposed symbology structure.
2) Semantic tools and processes to enable any LEAPS model to use the proposed symbology structure
3) Proposed governance process to manage the symbol sets (scope, natures of changes and decision process)
4) Summary and analysis of the work to use the symbology set in at least two regions

Q13. (20141105) The nature of the interaction shown between the Catalogue service and the GeoSPARQL endpoint in Annex B, 4.6.1 (engineering viewpoint) is unclear. What is the dependency?
A.   Q8 answers this question. Is to be determined.

Q14. (20141105) Annex B, 4.2.12 states: "The report shall capture the work performed related to section 4.2.1. 'Cataloguing'." However section 4.2.1 is entitled "OGC Testbed 11 REST Interface ER". Should this refer to 4.1.4 instead?
A.   Yes it should be 4.1.4 Cataloguing.

3   Urban-Climate Thread Clarifications

Q1.   It is not specified which data the deliverable "5.3.30 WFS-T 2.x with REST Interface and GeoJSON data delivery" is expected to host. Could this be clarified?

> A. The service is part of the geosynchronization use case that will address a flooding scenario. The data will be provided by the sponsor, but details need to be discussed. The data will be mostly feature data including both observations and forecasts for: winds, precipitation, tides, soil moisture, traffic

Q2. Given the requirement for schema publishing, is the CSW component shown in Annex B, Fig. 11 expected to be a CSW-ebRIM implementation?
> A. The CSW component shown in Annex B, Fig. 11 is used to list services and data sets used within the UCR thread, but UCR will use whatever implementation CCI is providing, as the catalog component is part of the CCI thread. The type of implementation has to be decided and can be proposed by participants. It is defined within the CCI thread.

Q3. What kinds of schemas will be registered? XML Schema? Schematron? UML (XMI representations)?
> A. At least the ISO Metadata Application Profile (1.0.0) should be supported for UCR

Q4. Is there a relationship between the Flood Inundation scenario and the US Climate Data Initiative?
> A. Yes, there is a direct relation. The scenario in the RFQ/CFP is based on OGC participation in the OSTP activities to develop the US Climate Data Initiative launched during a White House event on 3 March 2014. Here's the fact sheet outlining the announcements and a blog post from John Podesta and John Holdren. After the launch, OGC staff continue to work with organizations involved in the Climate Data Initiative about the plans for Testbed 11.

Q5. (20141031) In the UCR thread, 5.2.3.8 mentions "schema publishing" and a "schema registry" but does not elaborate so the scope of these requirements is unclear. Could they be satisfied by a catalogue service (one is shown in Annex B, Fig. 11)?
> A. This requirement addresses the problem of how to communicate and then negotiate changes made to the schemas for data held in the WFS-t enabled server. If a schema is changed on the server, the client will need to know. Once known, the client can then make the necessary changes. A mechanism by which the client can receive or automatically retrieve notification of these changes would suffice for the testbed. CSW could well satisfy this requirement.

Q6. (20141031) The response to Q3 mentions the "ISO Metadata Application Profile (1.0.0)". Is OGC 13-084r2 (ISO 19115 Extension Package of CSW-ebRIM) an acceptable alternative? It also supports ISO 19139 metadata representations.
> A. This would be sufficient for UCR, but as stated before, the more important requirements come out of CCI.

Q7. (20141105) Annex B, 5.2.3.8 states that "The schema implementation engineering report shall address..." However, no corresponding ER appears in

Annex A, Table 1. Rather, it is listed as a component deliverable. Does that mean a supporting software implementation is requested?

A. Yes, the requirement 5.2.3.8 addresses the problem of how to communicate and then negotiate changes made to the schemas for data held in the WFS-t enabled server. If a schema is changed on the server, the client will need to know. Once known, the client can then make the necessary changes. A mechanism by which the client can receive or automatically retrieve notification of these changes would suffice for the testbed. CSW could well satisfy this requirement. The engineering report shall describe the schema handling and synchronization.

4   Geo4NIEM Thread Clarifications

Q1.   How will metadata resources (e.g. IEPDs and related artifacts, service and data descriptions, access control policies) be handled in this thread? No discovery facility is shown in Annex B, Fig. 15.

A. This is not a specific sponsor requirement. We welcome any in-kind contribution in this area.

Q2.   (20141103) During the Geo4NIEM previous project, there was indication that a follow-on project was anticipated to be of similar scale. Since this follow-on project is part of an OGC test bed, which of the following is true?

1. Project size is unchanged – it is just part of OGC Testbed
2. Project is now much smaller and part of OGC Testbed
3. The OGC Testbed part is only PART of the Geo4NIEM activity

A. The Geo4NIEM thread in Testbed 11 is sized by requirements and funded on the order of a typical thread as compared to previous testbeds, historically.

Q3.   (20141105) OWS-11 RFQ, Annex B, Section 6.2.7 states "... to conduct an analysis and study to reach a consistent approach across the OGC suite of service standards addressing security requirements". But, the title of the ER reads "... OGC Suite of Standards ...". Should it not read "... OGC Suite of Web Services Standards ..."?

A. The title of the ER is as provided by the sponsor. RFQ Section 6.2.7 indicates that the OGC suite of service standards are the focus of this task and associated ER.

5   Sponsor-provided additions and corrections

Q1.