



Monthly VTC Minutes of UN Open GIS Initiative

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prepared by UN Open GIS Secretariat (unopengis@krihs.re.kr)

Participants: 48 persons from 32 UN missions/agencies and organizations
OpenGDS/Pusan National University: Ki-Joune Li;
OSGeo/Politecnico: Maria Antonio Brovelli;
UNHQ: Kyoung-Soo Eom, Guillaume Le Sourd, Timur Obukhov, Taro Ubukawa, Cung Thang;
UNGSC: Diego Gonzalez Ferreiro;
UN Missions: Akbar Amini, Remi Kouakou, Elvis Odhiambo Ayiemba, Roksana Mannan (UNMISS), Togarepi Rodwell Chireshe, Vasco Oguzua, Amon Nganga Mbugwa (MONUSCO), Anandavel Kannan, Raneque Whyte, Gabriel Sanya (MINUSCA), Davide Barbiero (MINUSMA), Aka Atttron (UNSOS), Maria Cristina Diaz Rondoni (MINURSO), Benson Maina Gachaga (UNMIK);
UNLB: Mirco Vantaggio;
UNGP: Tomaz Logar;
UN ECLAC: Horacio Castellaro;
UNODC: Lorenzo Vita;
UN Open GIS Initiative Secretariat Office (KRIHS): HaeKyong Kang, Youwon Hwang;
OpenDroneMap: Stephen V. Mather;
FAO: Zhongxin Chen;
WFP: Dimitris Karakostis;
GISPO: Pekka Sarkola;
UNESCO: Amélie Gagnon;
GSI Japan: Hidenori Fujimura;
GeoSolutions: Eddy Cataneo;
ITU: David Botha;
OpenDroneMap: Stephen V. Mather;
GeoThings, Taiwan: Slayer (Kuo-Yu Chuang);
Southwest Jiatong University, China: Saied Pirasteh;
Georepublic, Germany: Vicky Vergara;
ITRACASA: Pablo Vega Ezquieta;
Two Sigma Data Clinic: Rachael Weiss Riley, Kaushik Mohan, Erin Stein, Pablo Samiento;
Kan-Territory & IT: Ariel Anthieni
Nascentinfo: Pillappan Karuppiah, Santosh Gaikwad;

1 **Opening**

1.1 **Greeting**

- 1.1.1 Prof. Ki-Joune Li opened MVTC of September 2022 and shared agenda.
- 1.1.2 Kyoung-soo welcomed all participants and look forward to moving forward.

1.2 **Meeting Agenda**

- Introduction of New Members
- Open Q & A and discussions
- FOSS4G 2022 Report and following-up by Secretary Timur
- New Governance Structure of UN Open GIS Initiative by Ki-Joune and Timur
- Working Group (WG) Reports
 - WG-1 Hybrid GIS Platform
 - WG-2 Capacity Building

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- WG-5 Geo-AI & Analytics
- WG-6 OpenDroneMap & 3D
- WG-7 Fast and Secure Maps
- Update on Progress of Pilot Projects
 - UNMISS Story Map
 - Mobile GIS Solutions including the integration with Azure AD
 - Integration of Azure AD with GeoServer/GeoNode
- Any Other Business (AOB)

2 **Introduction of New Members and Returning Members**

2.1 Rachael Weiss Riley

2.1.1 Rachael is the director of Data Clinique, which pro bono data tech for effects R, Two Sigma.

2.2 Kaushick Mohan, Erin Stein, and Pablo Samiento

2.2.1 Kaushick introduced what Data Clinique does with data science.

2.2.2 Ki-Joune asked how they decide topics of procedures and communication so on.

2.2.2.1 Kaushick briefly explained that with partners, on project based, they try to understand challenges.

- They try to decide whether data is available to answer questions and whether there is some alignments there.
- It is about the company has skill sets internally took that matches works that involved in trying to answer such questions.

2.2.2.2 When all of these start to align, they take projects and go from there.

2.2.2.3 Internal projects depend on more conversation to organizations and understanding of what kinds of works will benefit large groups of people with one or two products.

- Neither building individual customization of research and analytics to each organization, it's about how to maximize impacts and build tools that everyone can use in a lot of organizations.

2.2.2.4 Rachael added her company looks to whatever solutions that they're building are impactful to partners so that's taking into account to capacity on their sides. When it comes to open source, research and open source data project, the company really aims to build where there isn't something existing.

- Rather to redesign the wheel, the company slips existing open source structure and democratize access to open data and analysis for broad kinds spectrum of folks.

2.2.3 Erin Stein introduced herself and said she is to be here to learn from everyone and she is happy to explore partnership outside of the work.

2.2.4 Pablo Samiento is the full-stack engineer on Data Clinique and most of his experiences spin on the web Apps and mobile Apps including all the map related applications.

2.3 Ariel Anthieni

2.3.1 Ariel Anthieni is from Argentina and as the CEO of Kan-Territory & IT, he introduced how Kan supports organizations like UN ECLAC, Mexico City, etc. on the data field.

2.3.1.1 Link for the website of Kan: <https://kan.com.ar/>

2.4 Slayer Chen

2.4.1 Slayer is one of the board director of HOT for Humanitarian OpenStreetMap Team and on behalf of HOT, he would like to see if there is any further collaboration on those OpenStreet data and activity that can support UN and all the humanitarian sectors.

2.5 Pillappan Karuppiyah

2.5.1 Pillappan is from Nascentinfo in India and his company focuses to GIS and GIS solutions by the brand name, City Layer which introduces smart city.

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2.6 Santosh Gaikwad

- 2.6.1 Santosh, director of geo solution skill of Nascentinfo added about the product named Layer for variance; soft layers of city layer, campus layer, etc. based on open source technology like OSM, PostgreSQL, UN server open GIS, etc.
- 2.6.2 Nascentinfo is responsible for some operations in India and Japan. The homepage link is www.nascentinfo.com.

3 Review on Workshop and FOSS4G 2022

3.1 FOSS4G 2022 Update reported by Mr. Timur Obukhov and Ms. Amelie Gagnon

- 3.1.1 Timur briefly reviewed the sessions during the UN Open GIS Initiative Workshop during FOSS4G Conference in Firenze, Italy 23-24 August 2022.
 - 3.1.1.1 There were 45 participants attended to the workshop.
- 3.1.2 First of all, Ki-Joune hosted the presentation for the next phase of UN Open GIS.
 - 3.1.2.1 During the session, Ki-Joune presented the possible structures of working groups and identified the vision and new roadmap for UN Open GIS Initiative.
 - 3.1.2.2 The lessons that the initiative learned during first two phases and way forward were also discussed.
 - 3.1.2.3 Participants outlined the goals including enhancing the operational and sustainable capacity of the UN Open GIS initiative and supporting developing countries' Geospatial capacity building focused on open GIS software.
 - 3.1.2.4 The proposed structure was agreed upon with all participants of the workshop and participants discussed the possibility of building national capacity in the area of UN operations not only peace-keeping but in general other UN agencies responsible programs.
- 3.1.3 Hidenori from GSI Japan presented activities in relation to open source Vector tiles and vector tile-based web mapping processes that would provide us significant advantages in terms of using Vector tile.
 - 3.1.3.1 Hidenori presented the next step for the initiative and GSI Japan.
- 3.1.4 Keren Wang presented the work that has been done by UN ESCAP and GIS activities related to earth observation and also requirements for the Open Geospatial Service Platform in UN ESCAP.
- 3.1.5 Akbar from UNMISS presented UN Mission's view of political and peacekeeping missions for UN Open GIS Initiative and for open source platform in general.
 - 3.1.5.1 During the presentation, Akbar presented internal and external challenges with respect to deploying open GIS software and suggestions related to investments in developing of reliable contractual mechanism and cooperation framework, SOP (Standard Operating Procedure) on the country levels and expanding Geospatial users by targeting specific use cases.
 - 3.1.5.2 Also, missions would like to have directives via official channels from the HQ and UN GSC.
- 3.1.6 On Open discussion towards strengthening "Open Geospatial for Good" moderated by Ki-Joune, the participants provided their thoughts on the next phase of the UN Open GIS Initiative.
 - 3.1.6.1 They discussed integrating of identifying new users for open applications and expanding its user group and requirements to identify additional resources for specific projects in relation to open source technology.
 - 3.1.6.2 In addition to that, setting up requirements of analysis group or Advisory Board within the UN Open GIS structure was proposed.
- 3.1.7 Reports from working groups for their activities were followed.
 - 3.1.7.1 WG 1 on the hybrid GIS infrastructure was presented by Timur.

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- 3.1.7.2 WG 2 on activities related capacity building and development of education platform in house, UNGSC were presented by Diego.
- 3.1.7.3 WG 3 on geo analysis was presented by HaeKyong and Timur
- 3.1.7.4 WG 4 on data collection activities were presented by Ki-Joune.
- 3.1.7.5 WG 5 on GeoAI activities related to webinars, workshops, and various educational challenges were presented by Maria and Zhongxin.
- 3.1.8 Reports from Pilot Projects and Expert groups were having taking places.
 - 3.1.8.1 Outcomes of UNMISS GeoStory were presented by Akbar.
 - 3.1.8.2 Challenges on deploying smash of MONUSCO mobile application were presented by Epa.
 - 3.1.8.3 Open Drone Map deploying to UN was presented by Catalina from Columbia.
- 3.1.9 The plenary meeting was moderated by Ki-Joune and he summarized the discussion with participants.
 - 3.1.9.1 The summarization includes identifying new clients or for UN Open GIS initiative; developing solid links between UN Open GIS and the UN Geospatial network; practical implementation of pilot projects in the best way forward; identifying funds and resources that can be used for UN Open GIS initiative projects; and development of solutions and projects based on requirements of UN.
- 3.1.10 On brainstorming session for national capacity building session moderated by Kyoung-Soo, challenges discussed include:
 - 3.1.10.1 The shortage of human capacity in the filed missions.
 - 3.1.10.2 Lack of funds for specific projects.
 - 3.1.10.3 Identifying key partners for the training and building capacity delivery.
- 3.1.11 On technical forum on Mobile GIS solutions and Geo Story, Mobile GIS solution developers SMASH/GeoPaparazzi and QField and GeoStory developer, GeoSolutions presented their technical update and operational cases and open discussion on various technical issues with the participants.
- 3.1.12 Amelie added her experiences participating workshop and contributing each other.
 - 3.1.12.1 Kyoung-Soo answered it is great to hear from community to the initiative to better communicate with global community like FOSS4G.
 - 3.1.12.2 Our aim is not only to promote open source software and also to contribute open source communities.
 - 3.1.12.3 The reason for creating community is not developing open source code but to support UN activities and challenge.

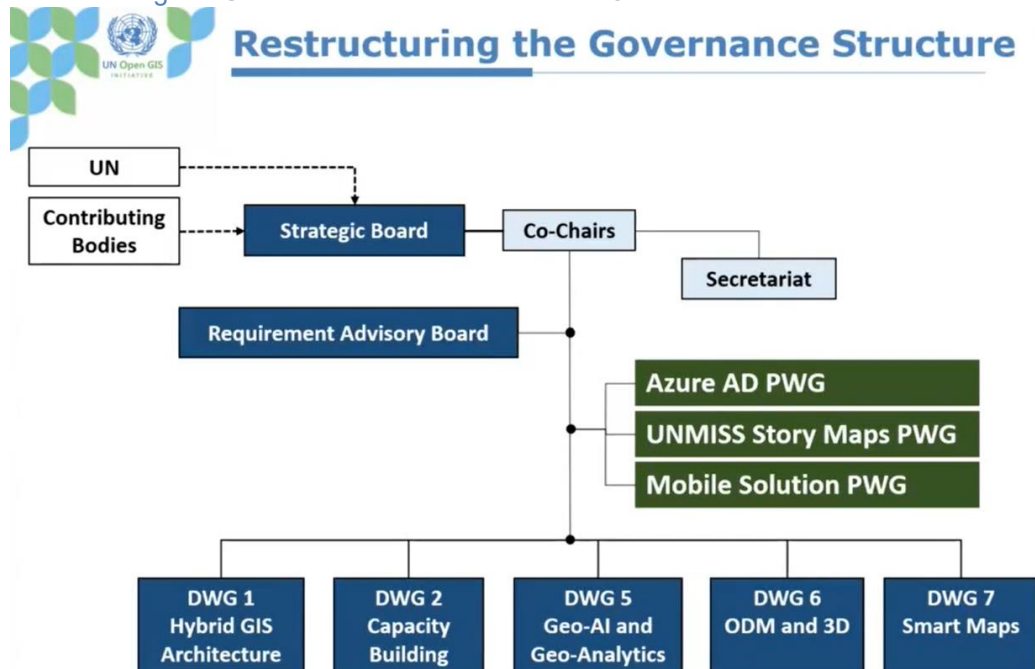
4 **New Governance Structure of UN Open GIS Initiative**

- 4.1 **New Governance Structure** reported by Prof. Ki-Joune Li and Mr. Timur Obukhov
 - 4.1.1 Ki-Joune explained each phase of the UN Open GIS Initiative.
 - 4.1.1.1 On Phase 1, for Seeding, leadership was setting up.
 - 4.1.1.2 On Phase 2, for Cultivation, through developing solutions, pilot projects and setting up the community, capacity of the initiative was developed.
 - 4.1.1.3 On Phase 3, for Harvesting, deployment and CQI through applying to field applications and implementing sustainable structure will be done.
 - 4.1.2 There were major changes have happened since 2016 meeting at UNGSC.
 - 4.1.2.1 Initially planned modules were replaced with stable open source like QGIS, GeoNode (Hybrid Architecture) to GeoSHAPE/Exchange, Mobile Solutions (SMASH, QField, COBO): GeoSHAPE Mobile, GeoCMS, OpenDroneMap: Live Drone Map, GeoServer and QGIS plugins for geo-analytic functions.
 - 4.1.2.2 Pilot projects have been on-going to meet the requirements from field missions.
 - 4.1.2.3 New active contributors like Geo-AI team, Japan GSI, Finland and ODM Foundation

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came to participate.

- 4.1.3 The very important lesson learnt from the last 6 years are the community is the most important rather than the single software.
- 4.1.3.1 For taking full advantages of well-established achievements from Geospatial OS Communities, tighter collaboration with OS Communities rather than developing a new OS software and setting up a new community.
- 4.1.4 From phase 3, the initiative will have user-oriented approach and start from pain points. For example, QGIS is more powerful desktop GIS tool easy to install than ArcGIS.
- 4.1.5 Open Source is cheap but not free so we need to provide financial and human resources to maintain.
- 4.1.6 Goals of the third phase are below.
- 4.1.6.1 Goal 1. Enhancing Operational and Sustainable Capacity of the UN Open GIS Initiative
- OS geospatial solutions to field missions
 - Internal capacity for OS geospatial software
 - CQI (Continuous Quality Improvement structure)
 - Stabilization of the hybrid GIS platform
 - Introduction of new OS technologies
- 4.1.6.2 Goal 2. Supporting Developing Country's Geospatial Capacity Building
- 4.1.7 Project Working Group is different from Domain Working Group in certain aspects.
- 4.1.7.1 Scope: Specific Demand/Solution (DWG-Technology)
- 4.1.7.2 Term: Termination when the goal will be achieved. (DWG-Indefinite/Undefined)
- 4.1.7.3 Leaders: Leaders from field missions or UN organizations (DWG-Technical experts of the domain)
- 4.1.7.4 DWG & PWG
- PWG may be initiated by Requirement Advisory Board or DWG.
 - But PWG is not tied up to a single DWG but supported by multiple DWGs.
- 4.1.8 Restructuring the Governance Structure for Phase 3 is like below.



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- 4.1.9 From Brindisi to Florence
 - 4.1.9.1 Brindisi: Strategic Place for **Pax Romana**, where the first kickoff meeting was held on 8 March, 2016 of the UN Open GIS Initiative.
 - 4.1.9.2 Firenze: **Beginning of the Renaissance**, and the place of this meeting in 2022, for preparing the 3rd step of the UN Open GIS Initiative.

5 **Working Group (WG) Reports**

- 5.1 **WG-1 Report** reported by Mr. Timur Obukhov
 - 5.1.1 Integration of AzureID with GeoServer and GeoNode and Timur thanked to GeoSolutions for agreeing to conduct update.
- 5.2 **WG-2 Report** reported by Mr. Diego Gonzalez
 - 5.2.1 Diego reported that they continue to create for the development of hosting educational platform in the UNGSC center.
 - 5.2.2 Ivan and Susan are reviewing training materials of QGIS based on efforts of Kais and another colleague from UNGSC.
- 5.3 **WG-5 Report** reported by Mr. Tomaz Logar and Mr. Zhongxin Chen
 - 5.3.1 Tomaz reported that Geo-AI groups facilitated couple of events in this month.
 - 5.3.1.1 Maria has facilitated ITU-AI for Good event called Geo AI Digital Transformation on Agriculture, Water and Food System.
 - 5.3.1.2 Geo-AI challenge is going ahead and it is requested for extension for a few weeks for submitting their works and ideas.
 - 5.3.2 For FAO colleagues, technical information about the challenge were requested.
 - 5.3.3 Maria added the webinar was successful because more than 200 people were attended.
 - 5.3.3.1 The point of the challenge is important as applying Machine Learning for solving problems related with food and agriculture.
- 5.4 **WG-6 Report** reported by Mr. Taro Ubukawa
 - 5.4.1 Stephan and Declan from UNGSC are now working on the processing on camp imagery with OpenDroneMap.
 - 5.4.2 Also, as Kyoung-Soo said there was OpenDroneMap in Mali workshop and good training sessions for the use of OpenDroneMap.
- 5.5 **WG-7 Report** reported by Mr. Hidenori Fujimara and Mr. Taro Ubukawa
 - 5.5.1 Mission of smart Maps working group is to build a global community of engineers and operator who are keeping web maps open and diverse.
 - 5.5.1.1 Objective 1. Operationalize vector tiles in the UN by Taro (UNGIS)
 - 5.5.1.2 Objective 2. Operationalize GSI vector tiles in ad distributed hosting environments by Hidenori (GSI)
 - 5.5.1.3 Objective 3. Introduce UNVT Portable in local governments by Taichi (GSC, AGU)
 - 5.5.1.4 Objective 4. Demonstrate a distributed map hosting environment for equitable smart campus solutions by Santoch (NASCENT)
 - 5.5.1.5 Objective 5. Develop and facilitate 3D geospatial data free flow by extending vector tiles for 3D apps by Takayuki (Geolonia)

6 **Updates on Pilot Project Working Group**

- 6.1 **UNMISS Geo Story Maps** reported by Mr. Akbar Amini and Mr. Mirco Vantaggio
 - 6.1.1 Akbar updated the team is still trying to get the approval from the communication and public information session for the content itself as well as some other security checks which Taro is trying to communicate with the cloud team and cyber security in HQ.
 - 6.1.2 Mirco added they are developing some minors changes on look and field of land page and that will be finished by the end of the week.

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- 6.2 Mobile GIS Solutions reported by Mr. Cung Thang
 - 6.2.1 Security team in UNGSC is checking the comparability and the vulnerability of Geo Papparazzi of Geo Service for further implementing of AzureID on top of SMASH.
 - 6.2.1.1 It should conclude soon and they will provide the update next time.
 - 6.2.2 Kyoung-Soo added one additional thing that they are exploring how to integrate AzureID with QField and QCloud.
 - 6.2.2.1 They are identifying the way how to move on and how to test the field.
 - 6.2.2.2 UNMISS has interests to field test and Kyoung-Soo also sent other missions for their interests of testing Mobile GIS Solutions on the field.
- 6.3 Integration of AzureID with GeoServer and GeoNode reported by Mr. Taro Ubukawa
 - 6.3.1 First, the team had a kick-off meeting in early December and works has been already started.
 - 6.3.2 So far, thanks to the support from UNGSC, they have established access to the development server.
 - 6.3.3 They decided they will work on existing GeoNode and GeoServer from the previous pilot.
 - 6.3.3.1 As Timur reported, they will work on upgrade of GeoNode from 3.2 to 4.0 with GeoSolutions colleagues' efforts.
 - 6.3.4 Once upgrade is done, they will start AzureID integration.

7 Any Other Business (AOB):

- 7.1 Capacity Building in Mali reported by Mr. Kyoung-Soo Eom
 - 7.1.1 For the information, the national capacity building workshop held in Mali, 12-16 September was successfully completed.
 - 7.1.1.1 OpenDroneMap, QGIS and UN net sessions were there and mutually they learned a lot.
 - 7.1.2 Many of the activities also are participating to support their demands.
- 7.2 UN-EU joint Hackathon on SDG11 reported by Mr. Kyoung-Soo Eom
 - 7.2.1 For SDG 11 aiming to make city inclusive, safe, resilient and sustainable, the proposal of UN Vector Tile Toolkit and WG-7 Smart Map by Hidenori and Taro was accepted and it will be launched a few days later.