The nice thing about standards is that you have so many to choose from

- Andrew Tanenbaum
Figure 82 — Schema dependencies
Where to start?
Approved and Candidate OGC API Standards

- OGC API – Discrete Global Grid Systems
- OGC API – Records
- OGC API - Maps
- OGC API - Styles
- OGC API – Moving Features
- OGC API - Tiles
- OGC API – Common
- OGC API - Routes
- OGC API – Environmental Data Retrieval
- OGC API - Features
- OGC API - Processes
- OGC API – Coversages
- OGC API – Joins

Green border means approved
Resources in OGC API Standards
from Data Interoperability...

...to System interoperability
Deployment model example

User: I am a fire incident commander: give me everything

User: just want features in WGS 84, but want to query

User: need features supporting other CRSs

User: tile it up and make it work on my phone
Implement interoperability
apply grease here
Modernization of documentation
Standards and augmentation

Core + Extensions

Adoption by alliance partners

Examples

e-Learning

Compliance testing now available for ‘OGC API - Features - Part 1: Core’ standard
A sample API implementing Common, Features, Tiles, Styles

**Common Part 1**

**API description**: Definition of the API in OpenAPI 3.0

**API provider**: Clemens Pforte, Interactive Instruments GmbH

**Data license**: The dataset was provided by the US National Geospatial Intelligence Agency (NGA) for development and testing. For any reuse of the data outside this API, please contact NGA.

**Spatial Extent**

**Daraa**

This is a test dataset for the Open Portal Platform through the OGC Testbed-16 as well as for the OGC Vector Tiles Pilot Phase 2. The data is OpenStreetMap data from the region of Daraa, Syria, converted to the Topographic Data Store schema of NGA.

**Links to the main resources**

- Access the data
- Access a web map with the data
- Access the data as vector tiles
- Styles to render the data in maps

**Tiles, Parts 1 and 2**

**Styles**

**Common Part 2, Features Parts 1 to 3**
Theoretical vs. Achievable Architectures
The recipe below makes a small batch. I almost always triple it. I chop the pieces of mango larger if I'm planning on serving this salsa as a salad. If I want to eat it as a dip with tortilla chips I dice the mango much smaller.

**Mango Salsa**

- 1 mango, diced small
- 1/2 large bell pepper, diced small (green, red, orange, whatever color you like)
- 1/4 cup diced red onion, diced small
- 2 T lime juice
- 2 T extra-virgin olive oil
- 1 tsp. ground cumin
- 1/2 tsp. of your favorite hot sauce (or more if you like it hot)
- pinch sea salt
- 2-3 T finely chopped cilantro

Combine the mango, bell pepper, and onion in bowl. Whisk lime juice, olive oil, ground cumin, hot sauce and salt in small bowl and stir into the salsa. Add chopped cilantro and stir until combined.

This is best served fresh, but it'll be just fine a day or two later.
null
Where can I get help?
OGC Innovation Program

Advancing & Applying S&T

01

Collective Problem Solving

02

Driving & Enabling Integration

03
OGC Innovation Program

01 Collective Problem Solving
02 Driving & Enabling Integration
03 Advancing & Applying S&T

Innovative Solutions
Best Practices
Open Standards
OGC Initiative Process

Step 1: Goal Definition
Sponsors and OGC develop the initial concept and agree on budget.

Step 2: Call for Participation
OGC publishes a call for participation and selects best participants.

Step 3: Agile Development
Sponsors, OGC, and participants develop the solutions together.

Step 4: Reporting
All material is publicly released. Implementations remain with participants.
Location is everywhere!

- New sensors
- Small sats
- LIDAR
- IoT
- Drones/CAVs
- ...

- GNSS
- 5G
- Global grids
- Indoor
- Underground
- ...

- Cloud
- Edge
- Streaming
- Internet
- APIs
- ...

- Computing Advancements

- More sources
  - More data

- Visualization and Interaction w data

- Data Science and Analytics

- Modeling and Simulation

- Location/Position
  - Accuracy

- Artificial Intelligence
- Machine Learning
- Big data analytics
- Linked data
- Analysis Ready Data
- ...

- 3D
- AR, VR, MR
- Gaming & simulation
- Maps on the web
- Natural language
-...

- 3D
- AR, VR, MR
- Gaming & simulation
- Maps on the web
- Natural language
- ...

- Weather
- Disaster risk
- Pandemics
- Human activity
- Hydro/soil/air/etc
- ...

- Cloud
- Edge
- Streaming
- Internet
- APIs
- ...

- Computing Advancements
We help integrate data to solve complex problems!

https://www.ogc.org/projects/initiatives/active
We develop standards and best practices

https://www.ogc.org/standards
We develop standards and best practices

https://www.ogc.org/standards
How can I get involved?
Contribute to the OGC API GitHub Repos

- Join the discussions.
- File issues.
- Submit PR.
Join the Working Groups at OGC

- Standards Working Groups - Groups that work on standards (new or revisions) through the OGC RFC process.

- Domain Working Groups - Groups that work on technology- or domain-specific requirements for interoperability.

- You need to be a member in order to join the WGs.

https://www.ogc.org/join
Join the OGC Code Sprints

- Multi-day virtual event
- Focus on one or more OGC standards
- Anyone is free to attend
- Provide a mentor stream to welcome newcomers

https://github.com/opengeospatial/developer-events/wiki
500+ International Members  
110+ Member Meetings  
60+ Alliance and Liaison partners  
50+ Standards Working Groups  
45+ Domain Working Groups  
25+ Years of Not for Profit Work  
10+ Regional and Country Forums

120+ Innovation Initiatives  
380+ Technical reports  
Quarterly Tech Trends monitoring

65+ Adopted Standards  
300+ products with 1000+ certified implementations  
1,700,000+ Operational Data Sets  
Using OGC Standards

Thank You

Community

Ingo Simonis
isimonis@ogc.org