ArcGIS Online, Portal & Interoperability

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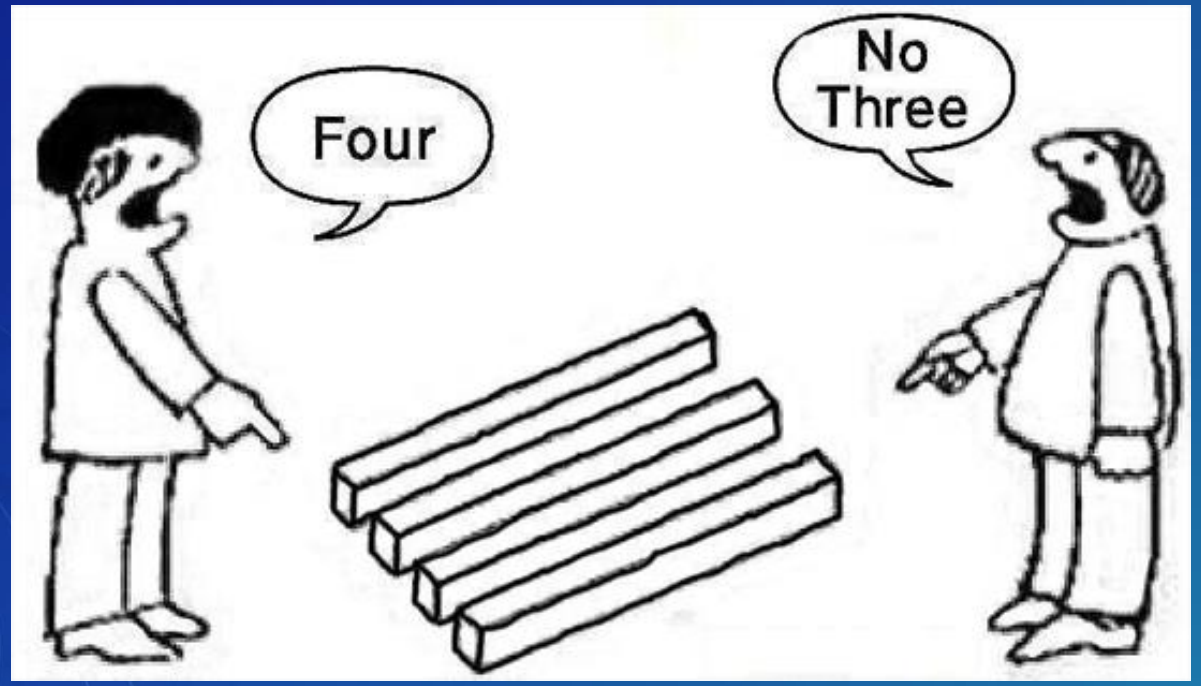
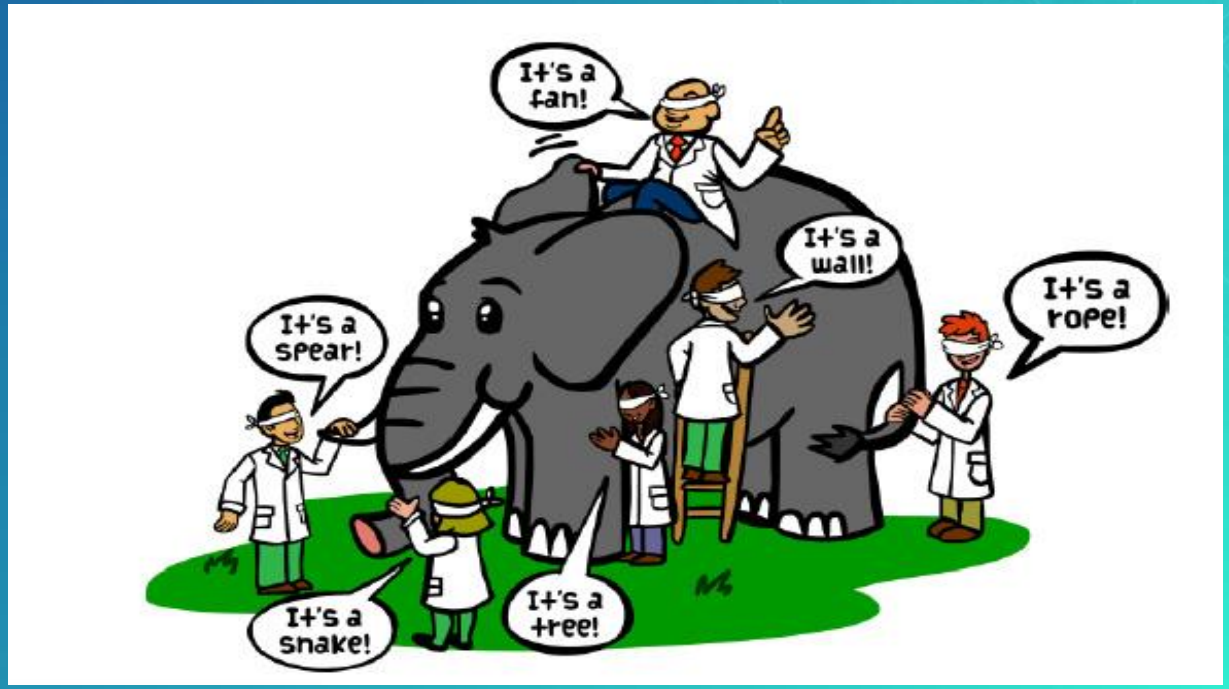
Open Systems and Interoperability

- **interoperability** is the ability of different information technology systems and software applications to communicate, exchange data, and use the information that has been exchanged.

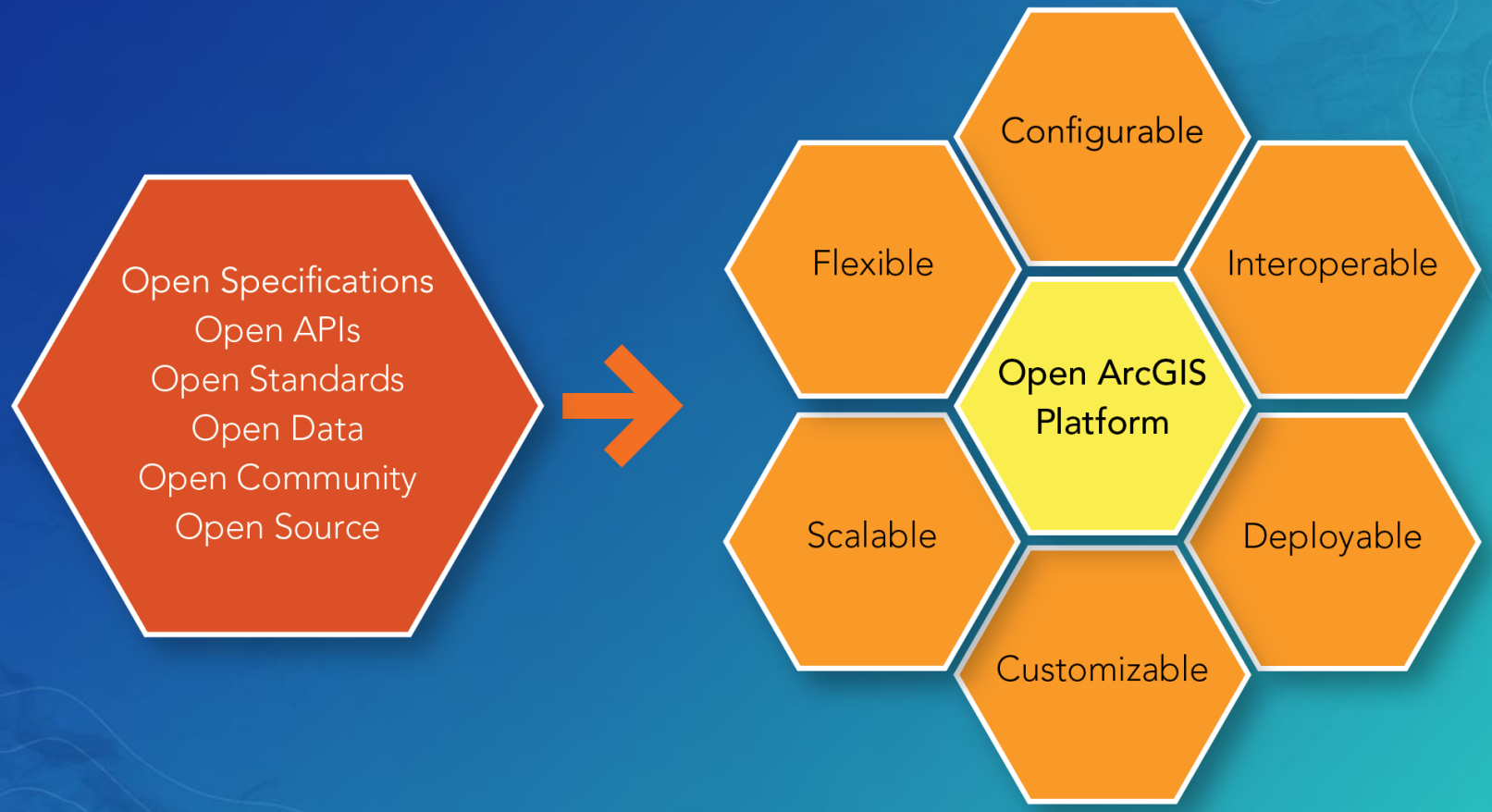
- **Open** systems are computer systems that provide some combination of interoperability, portability, and open software standards.

What is Open ? The many meanings of Open





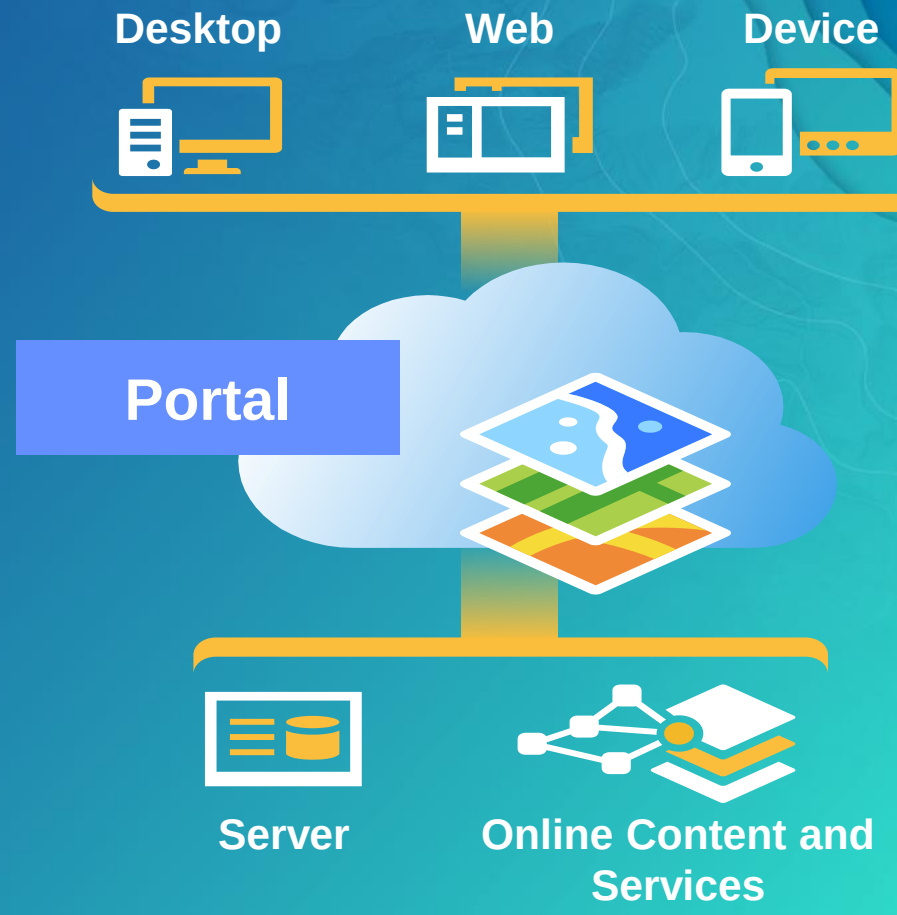
ArcGIS: Open Platform for Innovation



http://www.esri.com/software/open

The ArcGIS Platform

- An Open & Interoperable Platform
  - Supporting a thriving ecosystem of focused apps and applications.
- A Standards Compliant Platform
  - Supporting many relevant standards including those from ISO TC 211 and OGC.



ArcGIS

ArcGIS Online

- Hosted by Esri (SaaS)
  - Upgraded automatically (by Esri)
  - Esri controls SLA
- Esri-provided content and services
  - Basemaps
  - Living Atlas
  - GeoEnrichment, Routing, …

Core Web GIS functionality
(Apps, visualization, smart mapping, analysis…)

ArcGIS Enterprise

- In your own infrastructure (Software)
  - Upgraded manually (by organization)
  - Organization controls SLA
- Advanced GIS functionality
  - GIS Server
  - Image Server (optional)
  - GeoEvent Server (optional)
  - GeoAnalytics Server (optional)

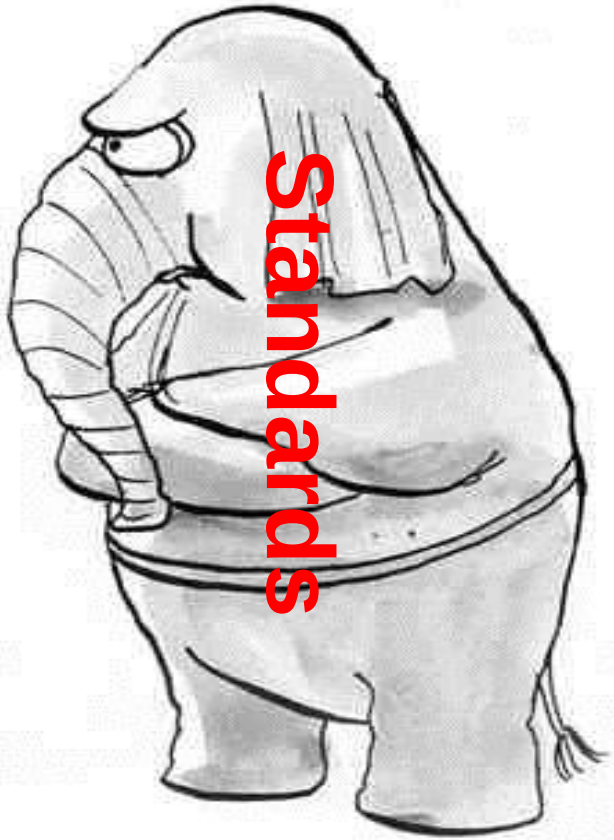
ArcGIS Enterprise | Software Components

All of these components existed in the software pre-10.5

ArcGIS Online / Portal – Supported formats

- **Data formats**
- **http://doc.arcgis.com/en/arcgis-online/reference/supported-items.htm**
- **Metadata formats**
- **https://doc.arcgis.com/en/arcgis-online/share-maps/metadata.htm**
- **Web Service protocols**
- **https://doc.arcgis.com/en/arcgis-online/reference/ogc.htm**

Open Platform Discussion



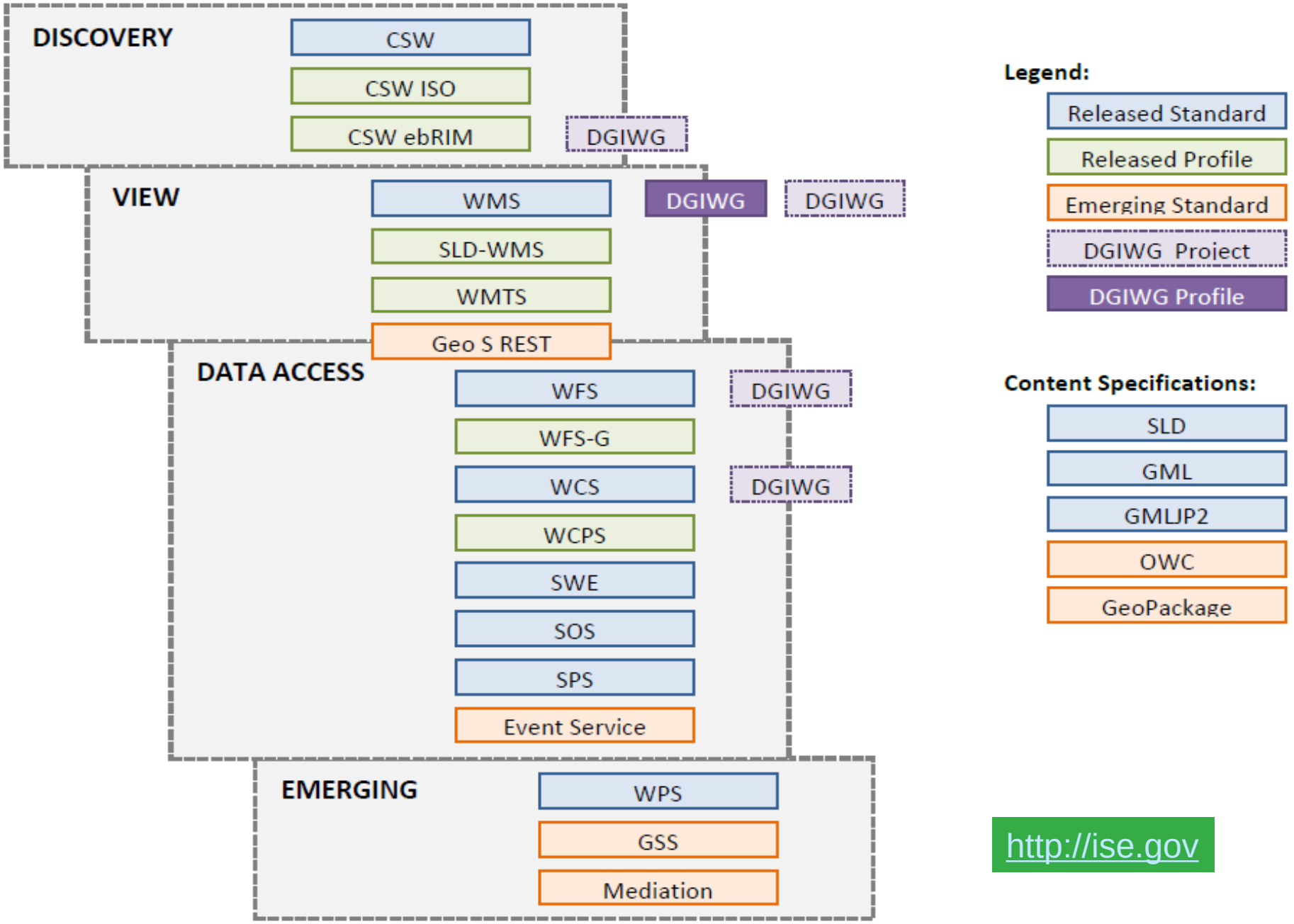
"I suppose I'll be the one
to mention the elephant in the room."

Standards (defacto & deJure)

- **Data Standards**
  - CAD, Shape file, CSV, GML, GeoJSON, GeoRSS, KML, JPEG, Geopackage, …
- **Metadata Standards**
  - ISO, FGDC, INSPIRE, DCAT, …
- **Web Service Standards**
  - GeoServices REST, WMS, WFS, WMTS, WCS, WPS, …

Service Standards

WMS, WFS, WCS, …



http://ise.gov

from … Geospatial Interoperability Reference Architecture (GIRA)

Demo

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esri
THE
SCIENCE
OF
WHERE