Proposal for a distributed climate data store for Copernicus

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Requirements for the Climate Data Store (CDS)

- Be distributed
- Reuse existing systems when possible

- ... But should not be a mere collection of heterogeneous systems:
  - The user should have a consistent view of all data and services available through the CDS

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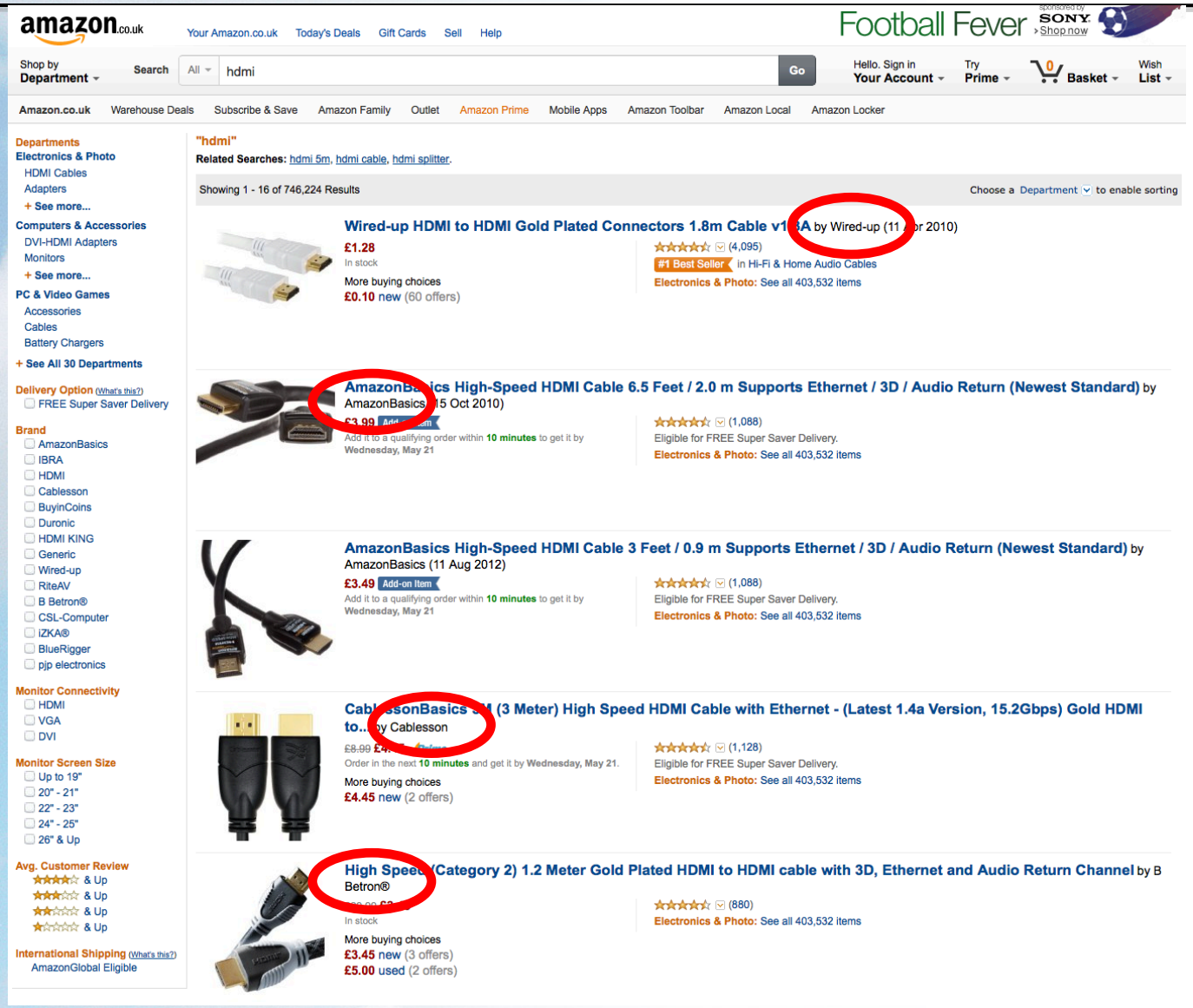
Amazon marketplace



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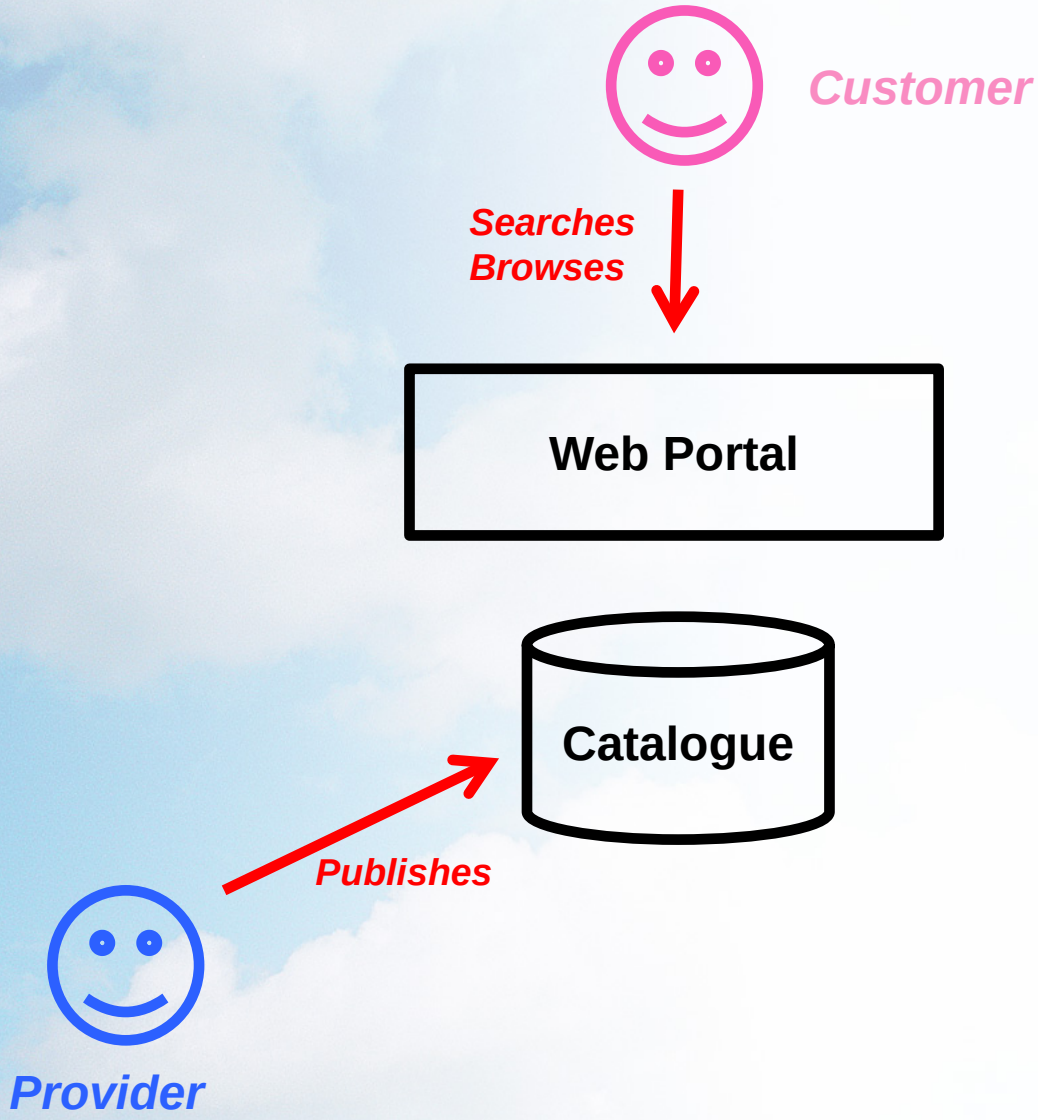

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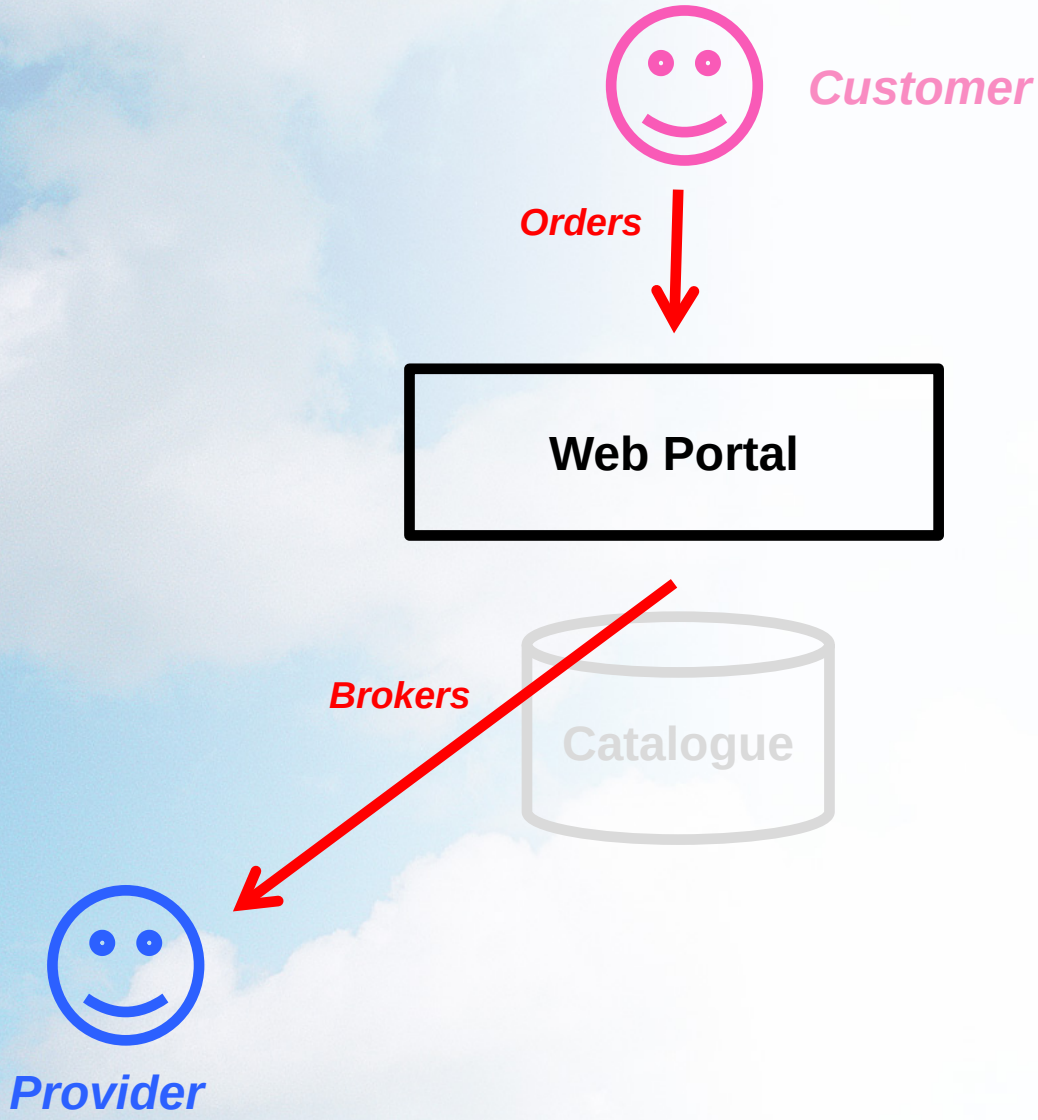

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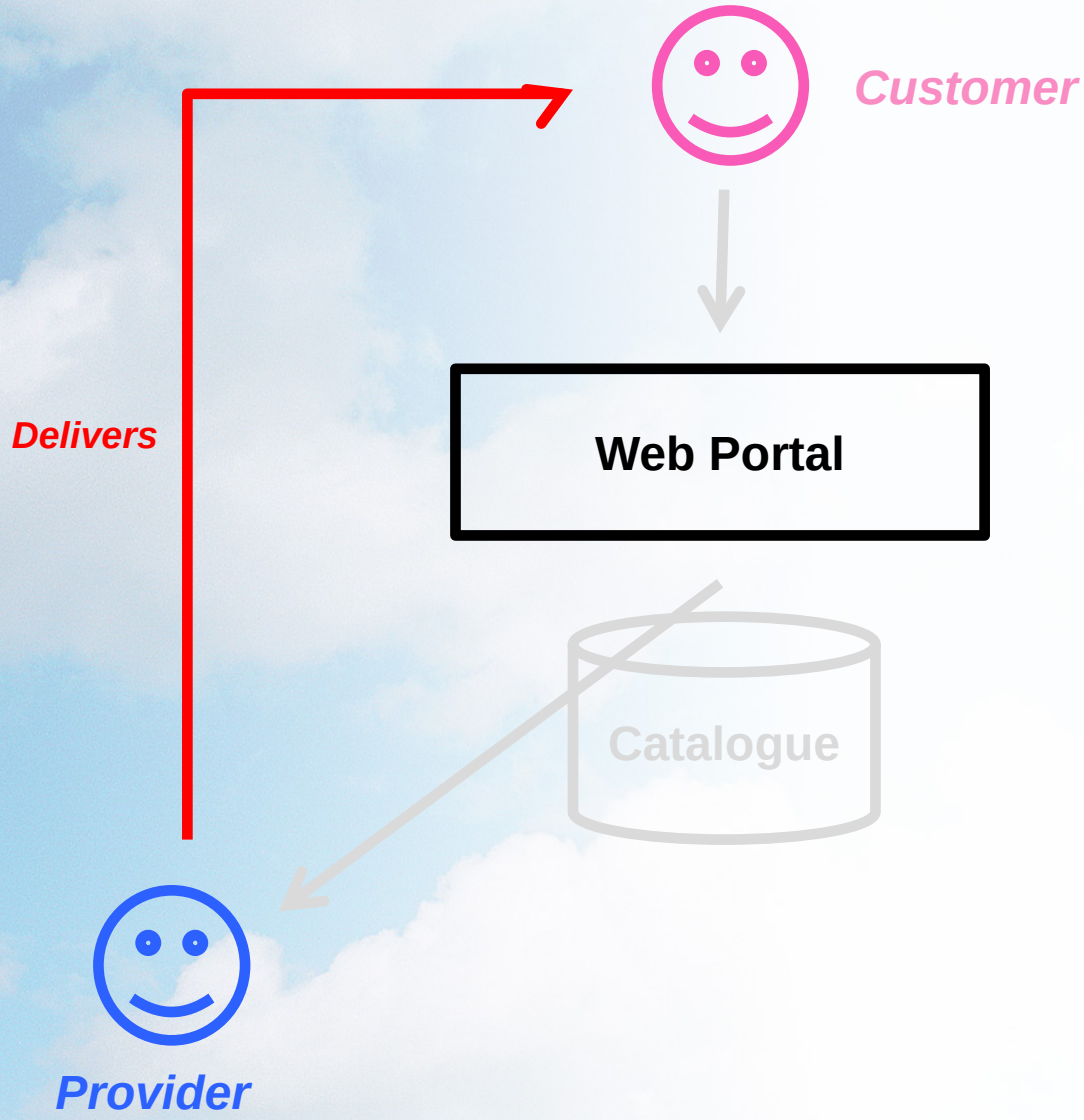

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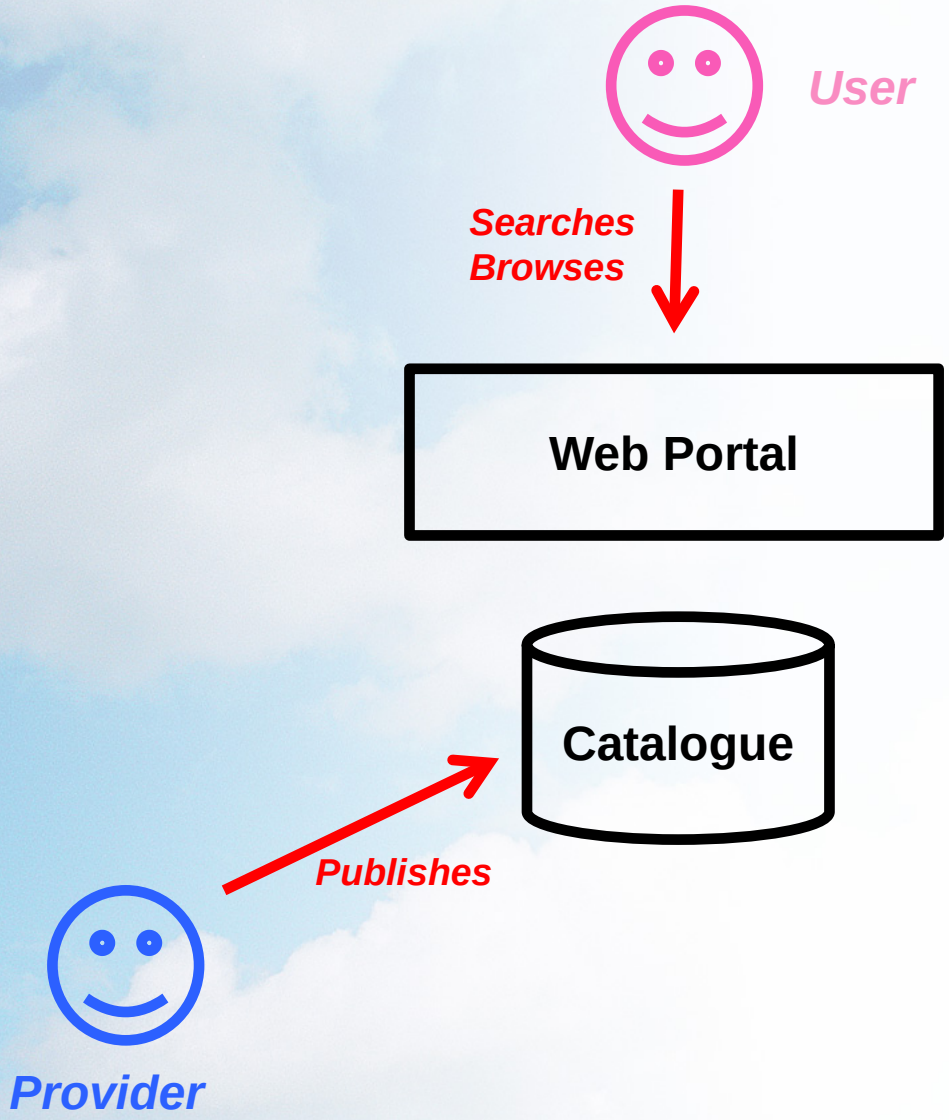
Distributed Climate Store



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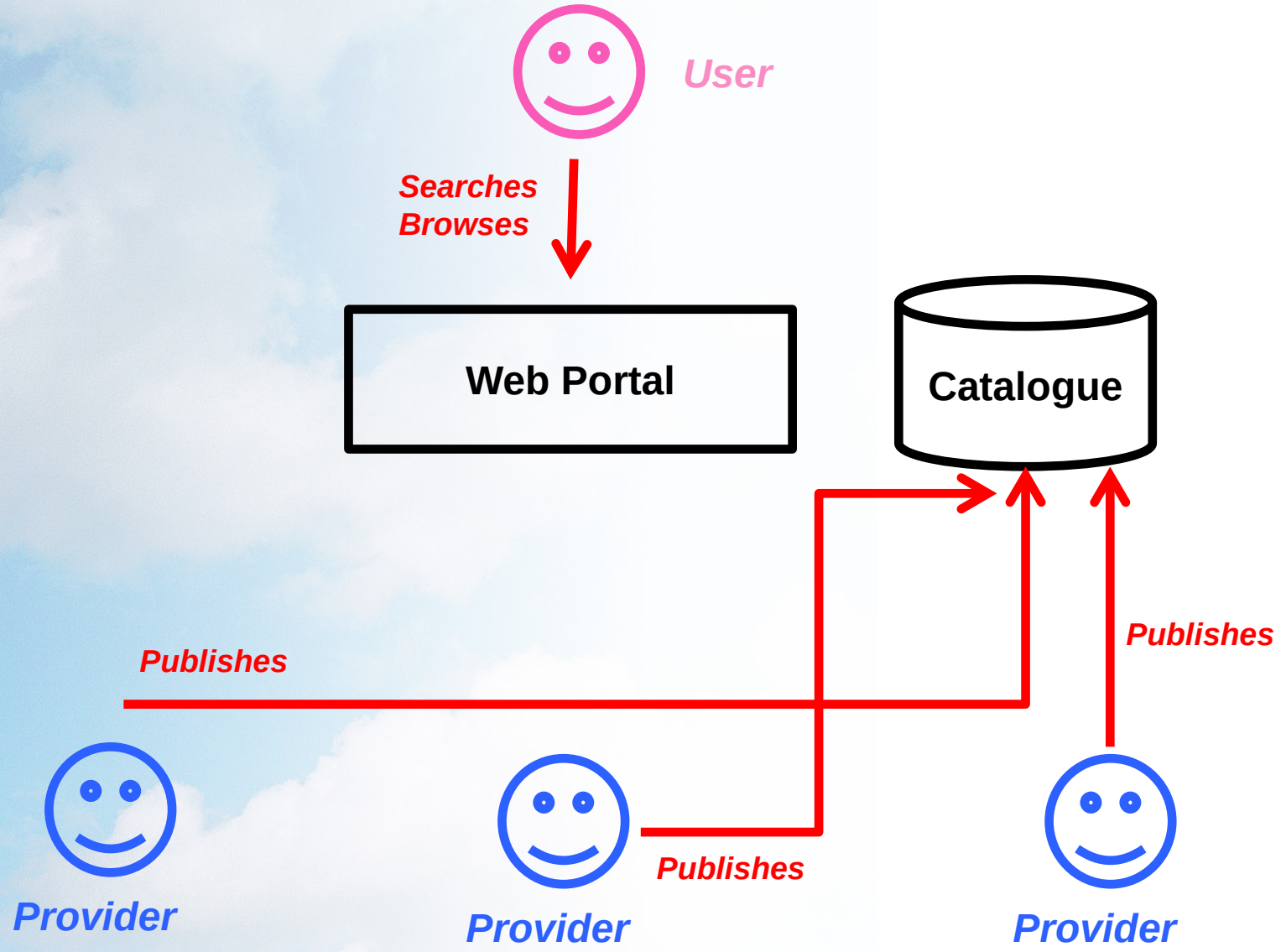
Distributed Climate Store



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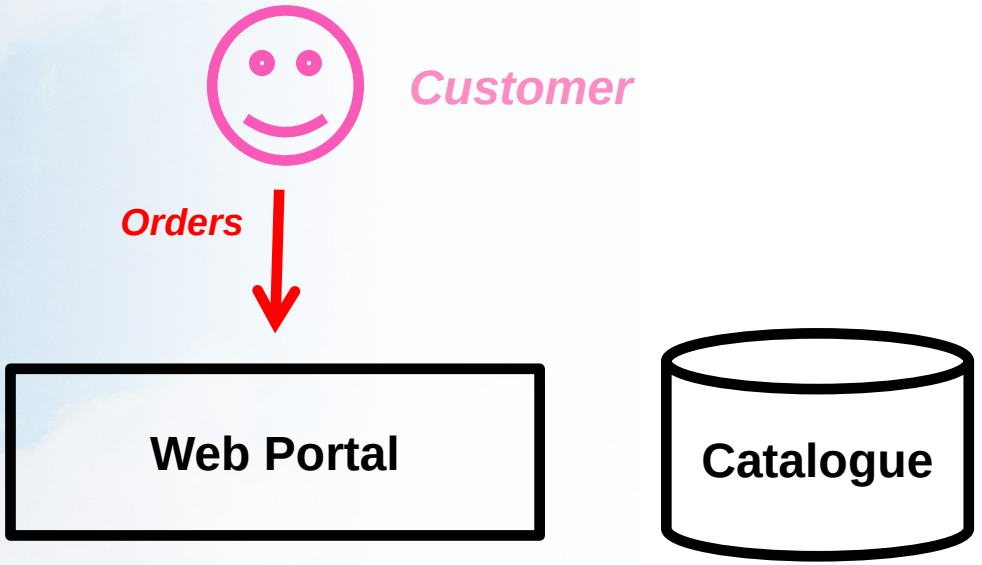
Distributed Climate Store



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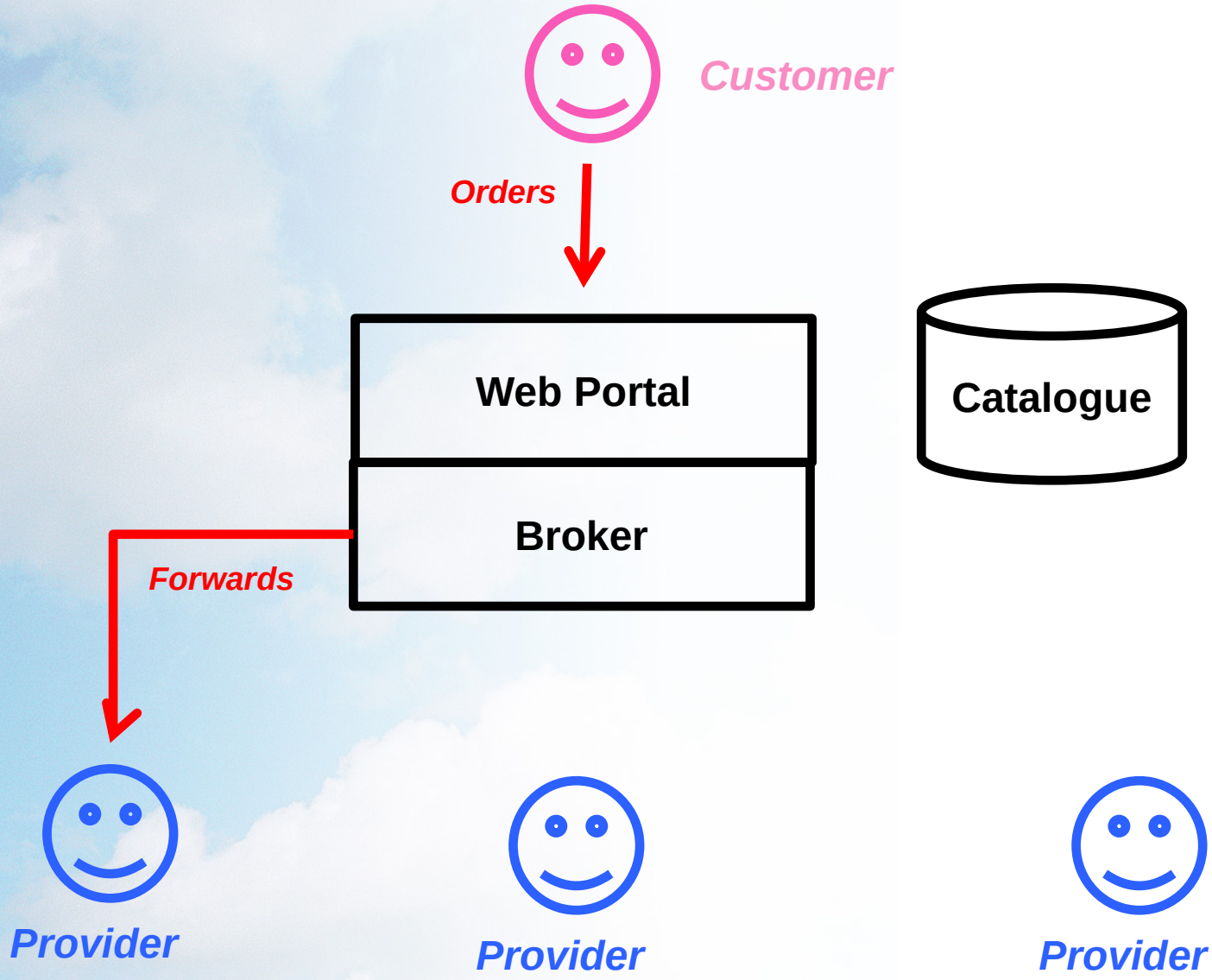
Distributed Climate Store



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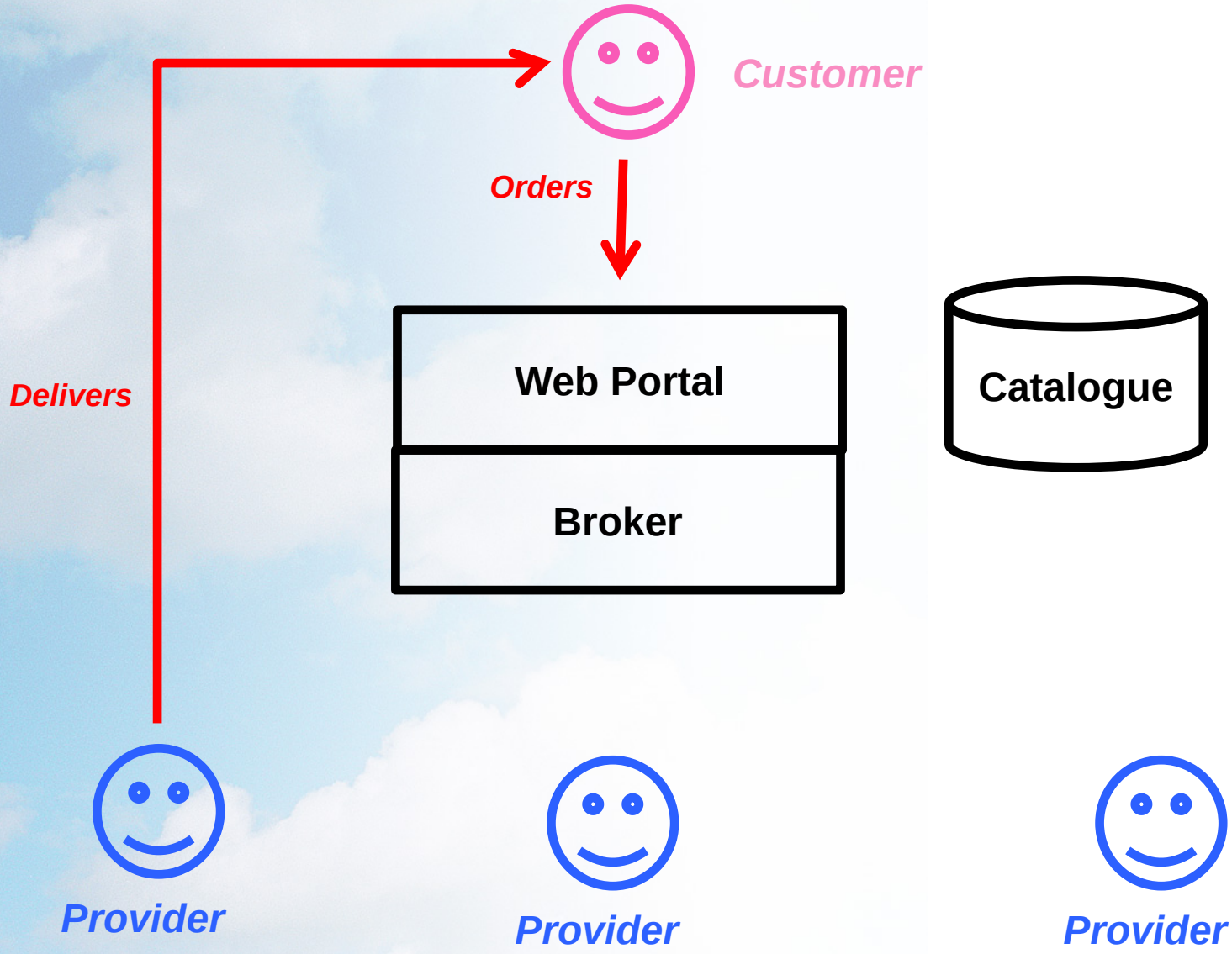

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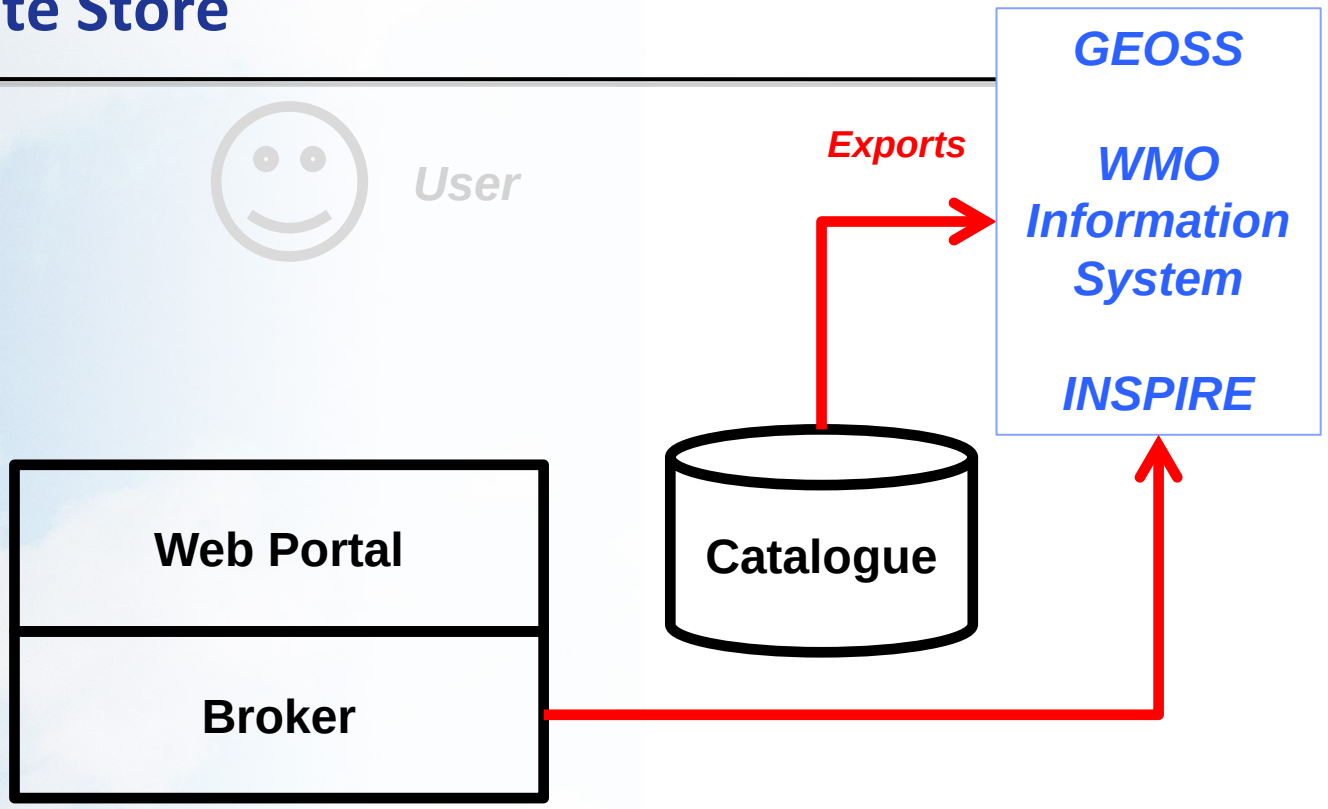

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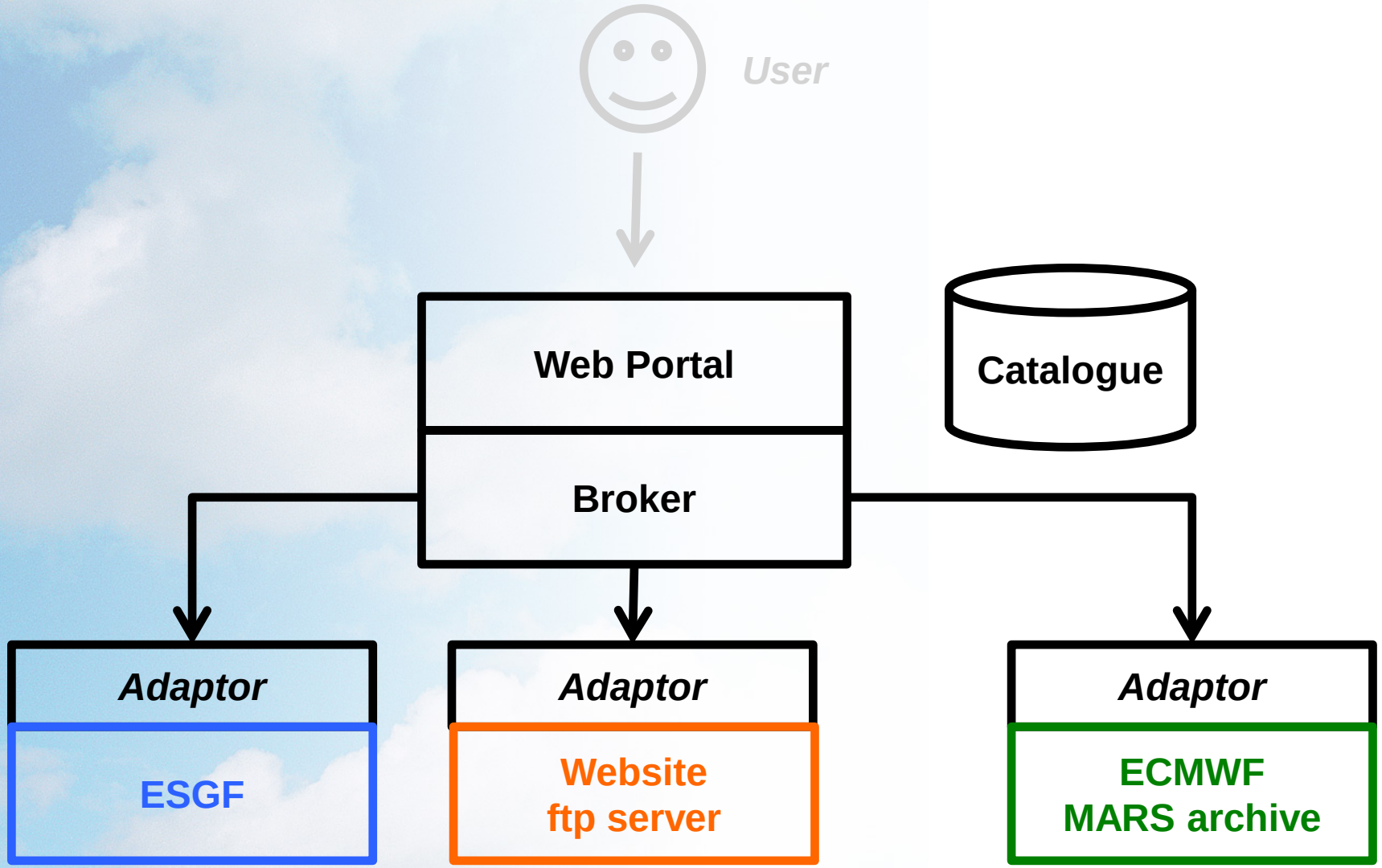

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Climate Data Store

- Adaptors are not limited to data provision
  - One can later build services (i.e. creation of on-demand derived products)
  - The will contribute to the “CCCS toolbox”
  - As for data, services are invoked by the broker
- ECMWF can host new services when no infrastructure exists

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Conclusion

- The proposed architecture for the Climate Data Store (CDS) fulfils the two main requirements:
  - Be distributed
  - Reuse existing infrastructure when possible

- The CDS will ensure interoperability with other frameworks
  - WMO Information System (WIS) ECMWF is a certified WIS-DCPC
  - WMO Global Framework for Climate Services (WMO GFCS)
  - INSPIRE, GEOSS…

- Next step:
  - Review existing systems/software/EU projects that are relevant to the CDS
  - Perform a GAP analysis, with focus on operations
  - Develop/procure the missing parts

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