Visibility Protocols Demostrator Workshop

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1 ESA

2 TPZ-VEGA for ESA

3 ATG for ESA

4 Quasar for ESA
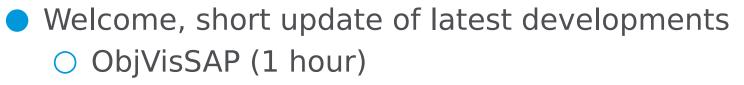
5 NuSTAR

Rationale

- To unfold its full potentials, the new standard protocols need to be implemented by a large number of observatories - ideally by all observatories
- This demo workshop targets both active implementers (software engineers) to see "how" as well as telescope operators/managers to get an idea of the degree of effort needed.

- Two sessions of approximately 3 hours:
  - **Friday 18 September 12UT**
  - **Monday 28 September 12UT**

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Participants

- ….. (summary of workshop participants)

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Agenda

- Welcome, short update of latest developments
  - ObjVisSAP (1 hour)
    - Introduction Presentation (15 minutes)
    - Reports from implementers for NuSTAR, INTEGRAL, and XMM-Newton (15 minutes)
    - Discussion with the audience (30 minutes)
  - ObsLocTAP (1 hour)
    - Introduction Presentation (15 minutes)
    - Reports from implementer for NuSTAR, INTEGRAL, and XMM-Newton (30 minutes)
    - Discussion (30 minutes)
- General discussion (40 minutes)

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ObsLocTAP (Observation Locator TAP) Status

- Server implementations:
  - Integral Science Archive, Chandra CFA (fully compatible), XMM-Newton (last steps)
  - Docker implementation (reference implementation)
- Client reference implementation
  - TOBY (ESA) http://integral.esa.int/toby

- Proposed Recommendation 1.0 Community review finished last 1st September
- Next Step, IVOA Technical Coordination Group review
- **IVOA Formal Recommendation expected for November (IVOA meeting)**

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- White Paper by S. Bradley Cenko, et al. 2020
    https://arxiv.org/abs/2007.05546:

International Coordination of Multi-Messenger Transient Observations in the 2020s and Beyond: Kavli-IAU White Paper

Description of the outcomes of a workshop held in Cape Town in February and identifies potential bottlenecks for transient and multi-messenger astronomy into the next decade.

- *"Telescope Coordination Recommendation 1:* ***We recommend the IAU endorse*** *a common format for all observatories to report previous and planned observations, namely the standard developed by the IVOA (**ObsLocTAP, Salgado et al. 2020**)."*

- **XXXI IAU General Assembly (Busan, August 2021)**

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ObjVisSAP (Object Visibility Simple Access Protocol) Status

- **Server implementations:**
  - Integral, Chandra, Gaia, XMM-Newton, Insight-HXMT

- **Client reference implementation:**
  - TOBY (ESA)

    http://integral.esa.int/toby

- **IVOA ObjVisSAP 1.0 stable working draft**
  - Convert to proposed recommendation in October
  - Plans for recommendation, end of 2020

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