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U-Space regulatory framework and the related standards

Andres Van Swalm

Co-Founder & CPO Unifly

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- The work is based on

  - The implementing regulation

  - The draft U-space regulation (Commission and EASA)

- U-space is key for enabling the drone industry

- Open Market

- CIS (Common Information Services) and USSP (U-space Service Providers)

- U-space services provided by multiple USSPs

CIS

- Designated by Member State for every U-space

- Single trustworthy source of information

- Support the exchange of information and coordination between U-space Service Providers and ATC

USSP

- Provides services to Drone Operators

- Provide a minimum set of U-space services to drone operators

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- Network identification service

- Geo-awareness service

- UAS flight authorisation service

- Traffic information service

- Weather information service ^{Optional Service}

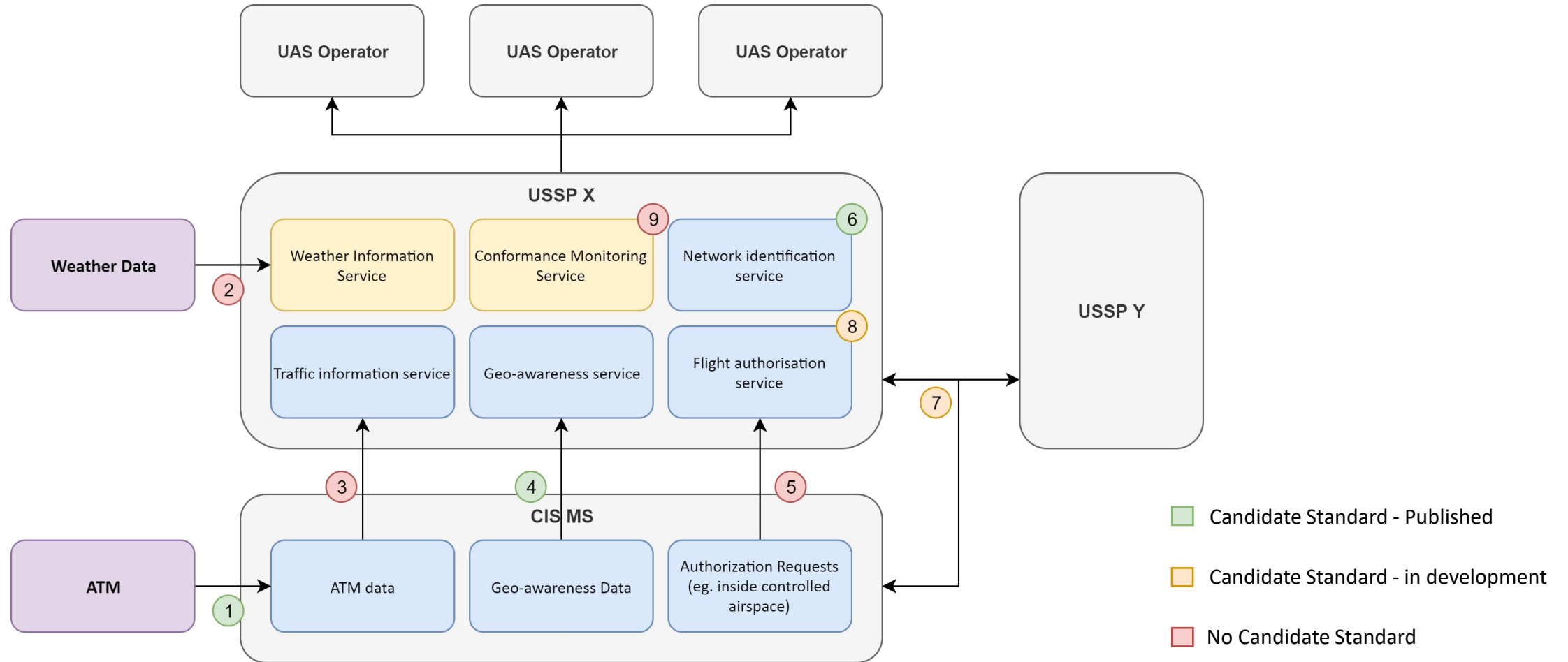- Conformance monitoring service ^{Optional Service}

U-space – Services

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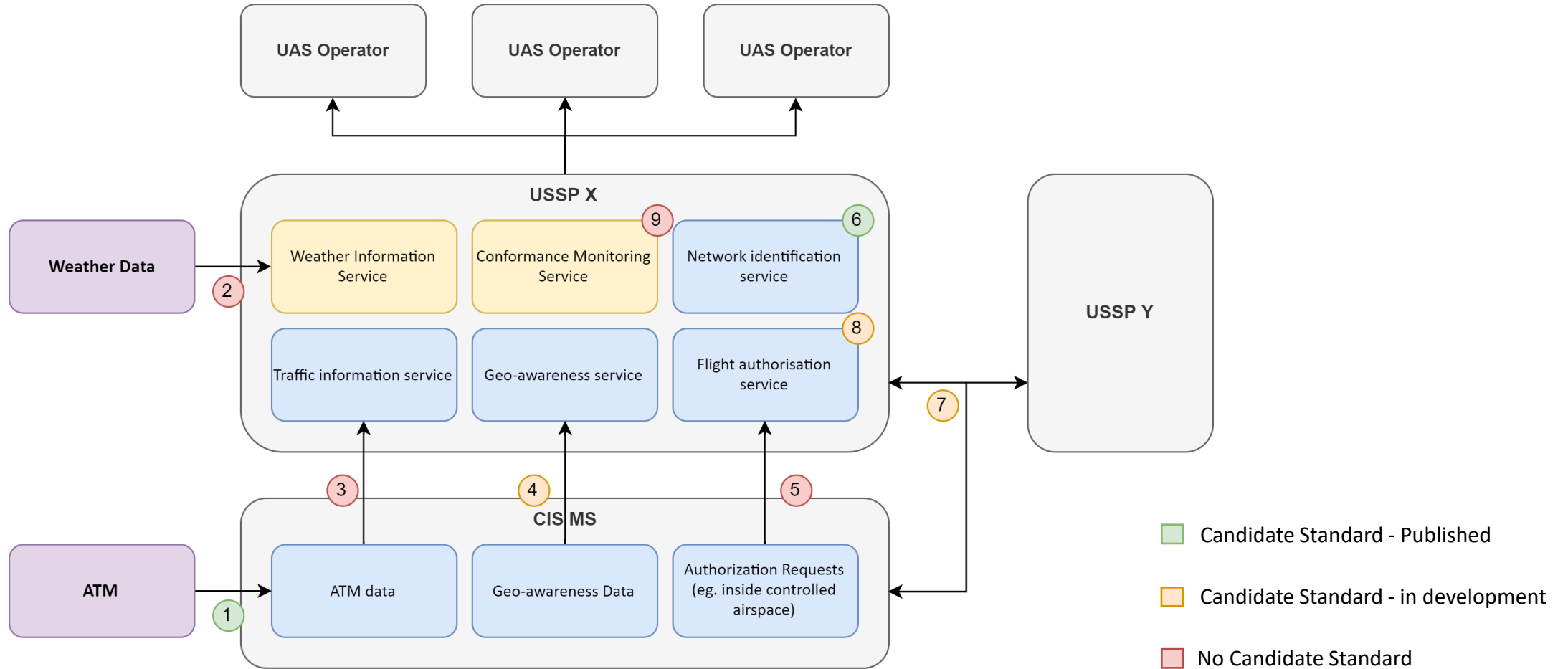
Standardisation bodies defining UTM standards:

- Eurocae (3)
- ASTM (4)
- ISO (5)
- IEEE (1)

U-space services – Candidate Standards

- ATM – U-space : Existing manned Aviation Standards (1)

  - <u>Asterix Protocols</u>

- Weather data (2)

  - WK73142 - F38.02: New Specification for Weather Supplemental Data Service Provider (SDSP)

    Performance

    Status: Under Development

- CIS – USSP : Air Traffic Data (3)

  - No candidate standards

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USSP X

Weather Data

2

Weather Information Service

Conformance Monitoring Service · 9

Network identification service · 6

8

Traffic information service

Geo-awareness service

Flight authorisation service

7

USSP Y

ATM

1

CIS MS

3

ATM data

4

Geo-awareness Data

5

Authorization Requests (eg. inside controlled airspace)

UAS Operator

UAS Operator

UAS Operator

Candidate Standard - Published

Candidate Standard - in development

No Candidate Standard

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- Geo-Awareness Service (4)

  - WG-105 SG-33: UTM Geo-Fencing (ED-269)

    Status: Published

  - ISO/CD 23629-7: UAS traffic management (UTM) — Part 7: Data model for spatial data

    Status: Under Development

  - ASTM - WK63418 - New Specification for Service provided under UAS Traffic Management (UTM)

    Status: Under Development

- Dynamic Airspace Configuration - Flight Authorization Requests (5)

  - No candidate standards

U-space services – Candidate Standards

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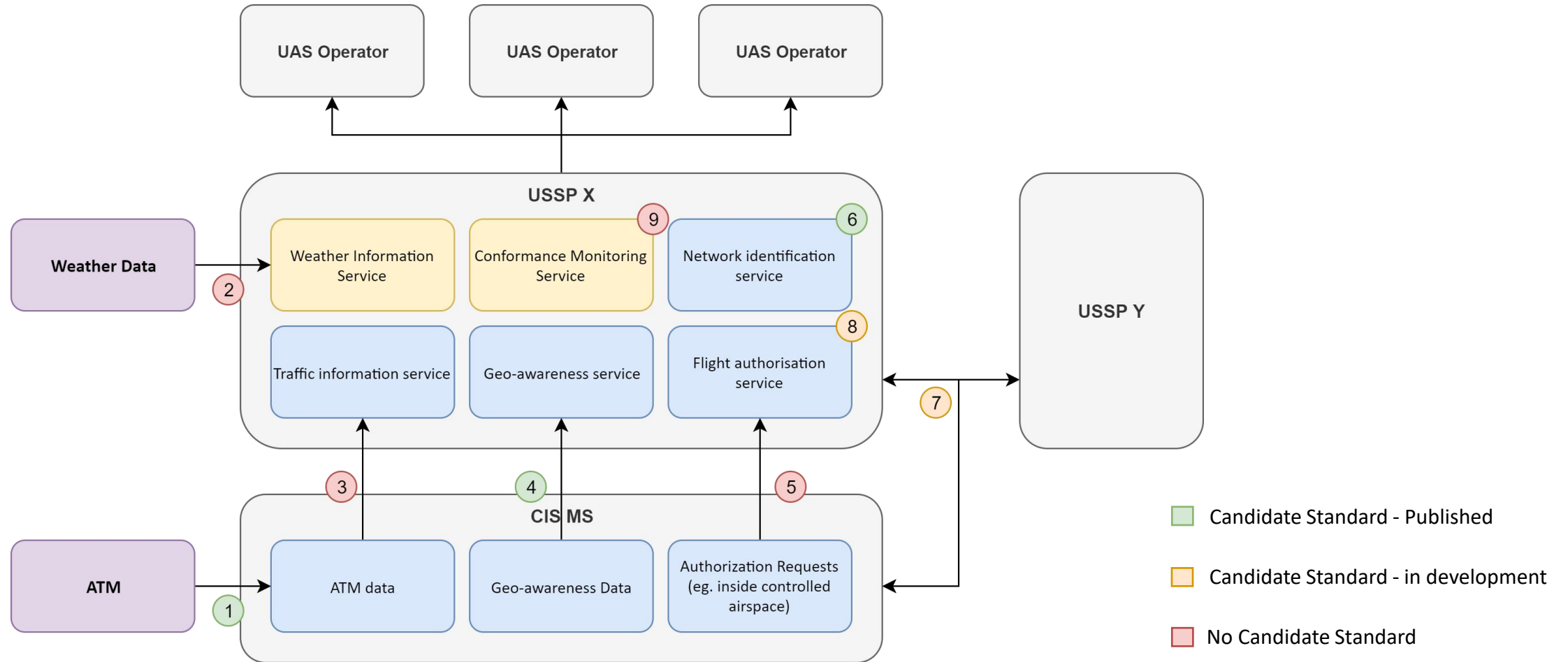
- Network identification service (6)

    - ASTM - WK65041 - UAS Remote ID and Tracking (F3411 – 19)
    Status: Published ℹ️

    - ED-282 – SG-32: Minimum Operational Performance Standard for UAS E-Identification
    Status: Approval

    - ISO/PWI 23629-8: UAS Traffic Management (UTM) — Part 8: Remote identification
    Status: Under development

- Communication Service (7)

    - ASTM - WK63418 - New Specification for Service provided under UAS Traffic Management (UTM)
    Status: Under Development ℹ️

U-space services – Candidate Standards

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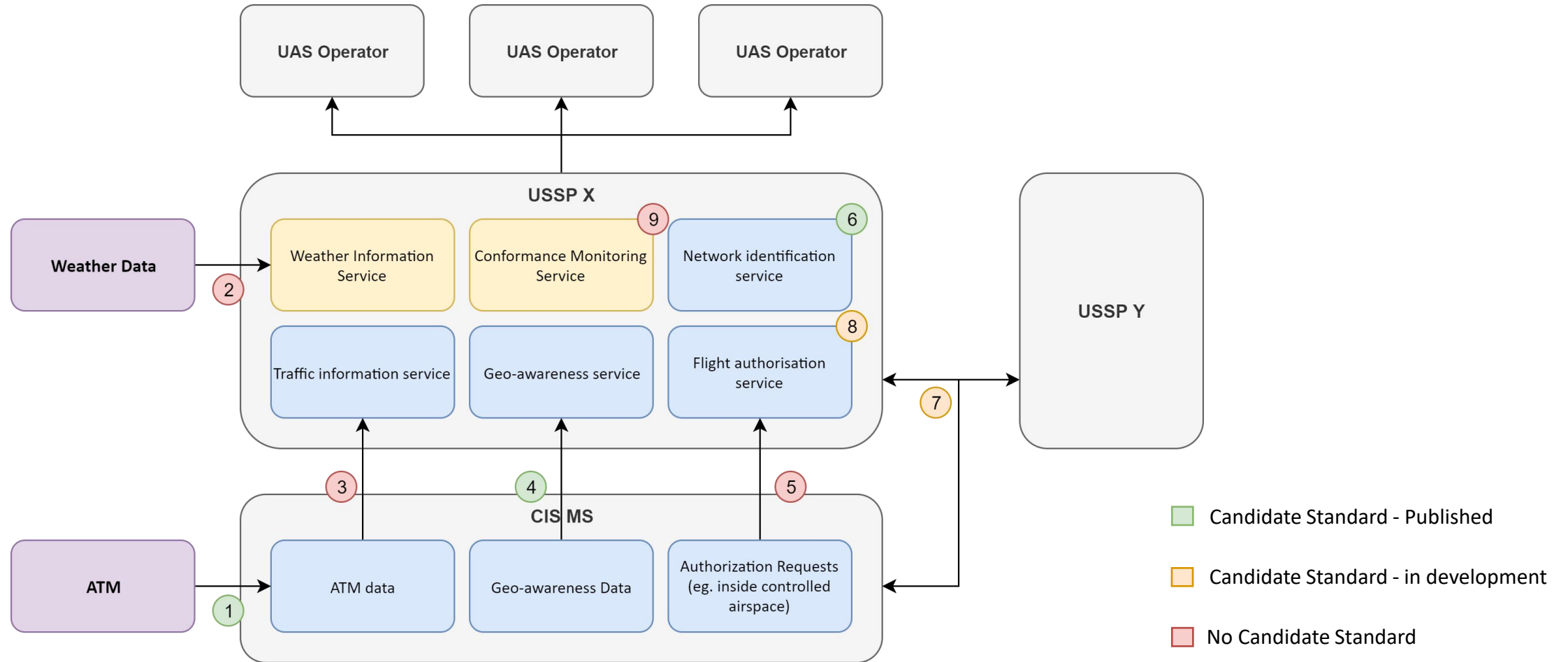
- Flight Authorization Service (8)

  - ASTM - WK63418 - New Specification for Service provided under UAS Traffic Management (UTM)
    Status: Under Development

- Conformance Monitoring (9)

  - No candidate standards

- Requirements for U-space Service Providers

  - *ISO/WD 23629-12: UAS traffic management (UTM) — Part 12: Requirements for UTM services and service providers*
    Status: Under Development

Thank you! Questions?

Andres Van Swalm

Co-Founder & CPO Unifly

andres.vanswalm@unifly.aero