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UE Data Collection, Reporting & Event Exposure

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UE Data Collection, Reporting and Event Exposure
Quick guide

Which specifications are under implementation?

- 5g-mag.github.io/Standards/pages/data-collection-event-exposure.html

Which reference implementations are made available?

- 5g-mag.github.io/Getting-Started/pages/ue-data-collection-reporting-exposure/
- **Repositories**
- **Projects**

5g-mag.com/store

Check our **Store** for **APKs**, **VMs** and other **components**

How can I play?

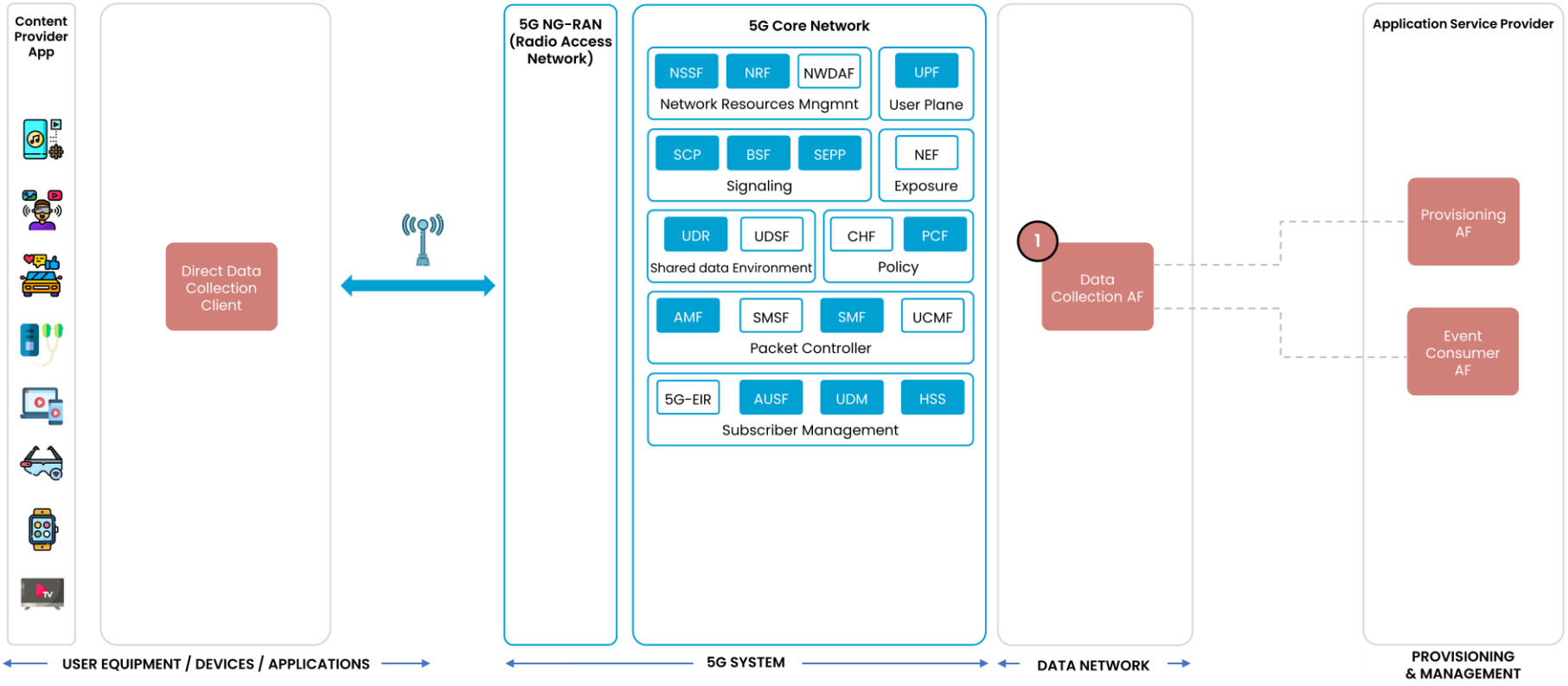
- **Tutorials**

Note that these tools may be instantiated alongside the 5G Media Streaming Architecture

5G MAG REFERENCE TOOLS

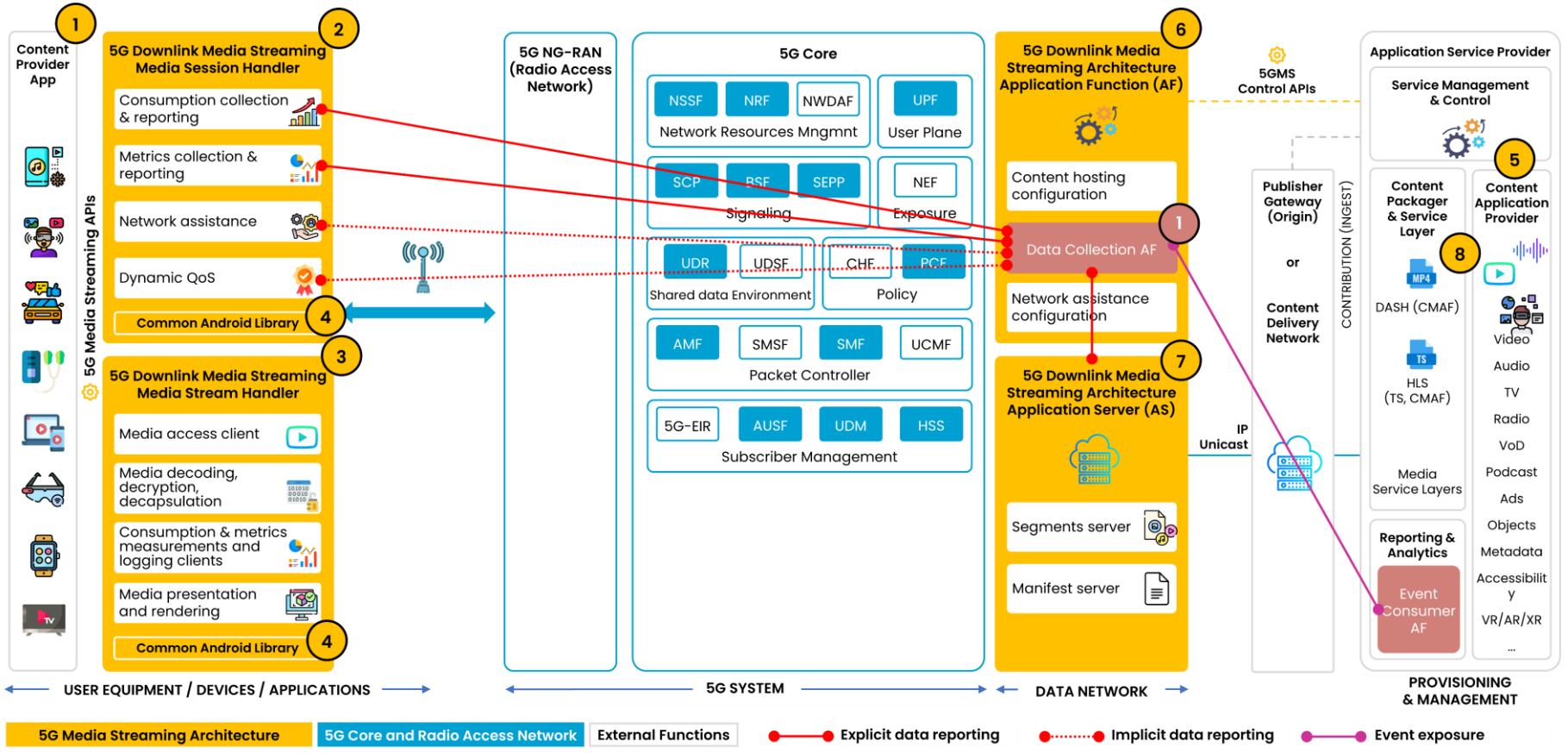
UE Data Collection, Reporting and Event Exposure

What is being implemented?



UE Data Collection, Reporting and Event Exposure

What is being implemented?



UE Data Collection, Reporting and Event Exposure

What is being implemented?

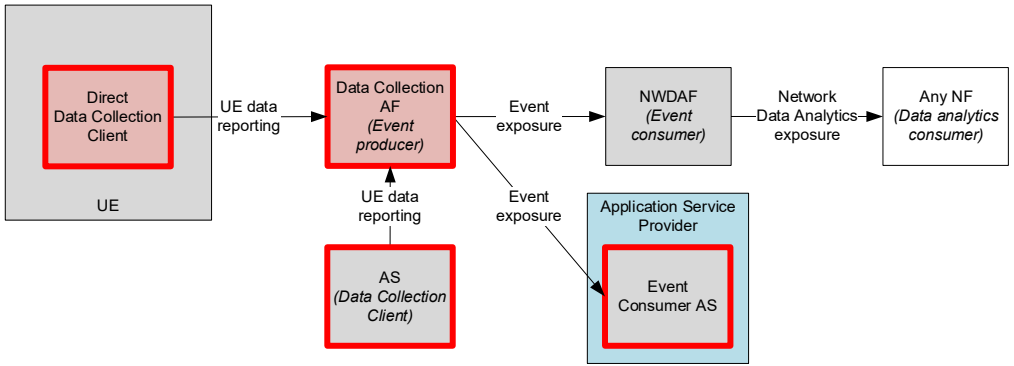
1. **rt-data-collection-application-function**
   (Generic 3GPP Data Collection AF)

3GPP A GLOBAL INITIATIVE | 5G-MAG PLv1.0 | Open5GS | Linux

Public release | Early Access | Linux | Windows | Android | APK | Docker | Cloud | Postman API | Web Interface | Dependency | Code Licence

UE Data Collection, Reporting and Event Exposure
What is being implemented?

- In **Rel-17**, SA4 defined an **abstract generic architecture for UE data collection and reporting** in **TS 26.531**:
  - A **Data Collection and Reporting AF** acts as the event producer:
    - Receives **UE data reports** from **data collection clients** (e.g. in UEs).
    - Various data processing instructions and data access restrictions are provisioned in the Data Collection AF (as "**Data Access Profiles**") that determine:
      1. What UE data parameters are collected and reported to the Data Collection AF by data collection clients.
      2. How the reported UE data is manipulated by the Data Collection AF.
      3. Which types of Event consumer are allowed to subscribe to each type of exposed event.
  - SA4 identified Use Cases for the Data Collection AF to additionally:
    - Collect UE data from **Application Server logs**.
    - Expose events to event consumers other than the NWDAF.
- The protocols for the generic UE data collection and reporting architecture are specified in **TS 26.532**.



UE Data Collection, Reporting and Event Exposure
What is being implemented?

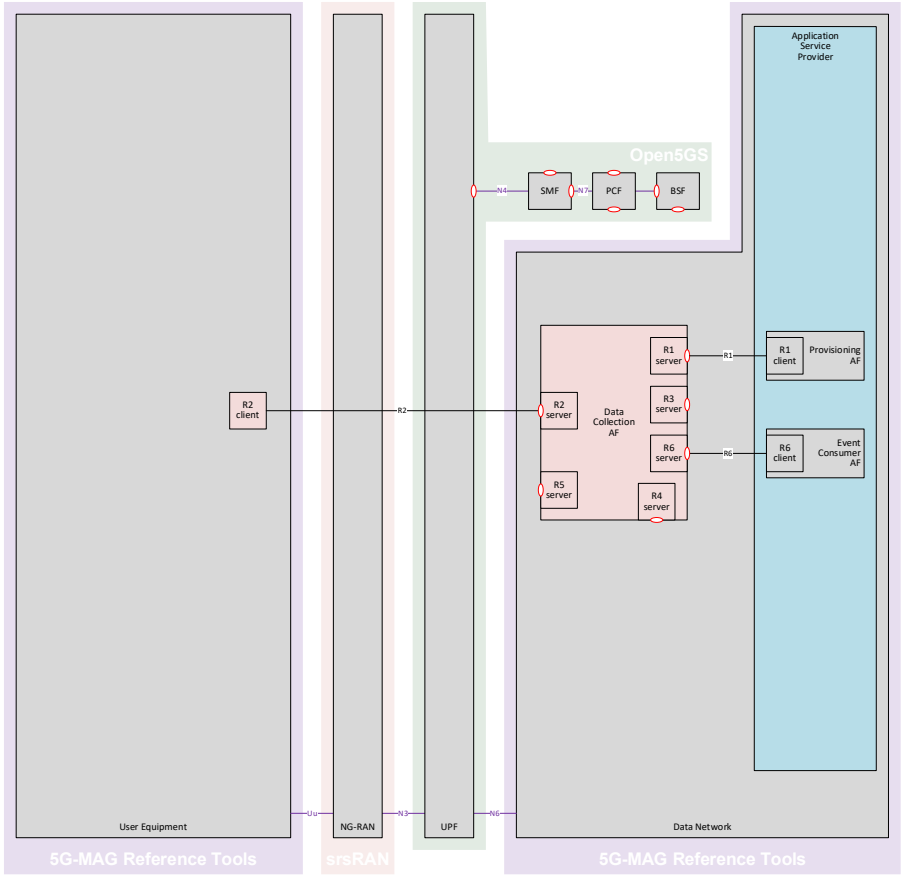
Standalone UE data reporting and event exposure

Development of reusable Rel-18 **DCAF Service Provider** library for data reporting and event exposure.

- Generic handling of **provisioning**, receipt and queueing of **data reports**, and **event subscription management/exposure**.
- Service endpoints for provisioning (R1), data reporting (R2/R3/R4) and event subscription/exposure (R5/R6).

Develop standalone Rel-18 **Data Collection AF** integrated with Service Provider library

- Including support for one data report type and one exposed event type (UE communication).



UE Data Collection, Reporting and Event Exposure
What is being implemented?

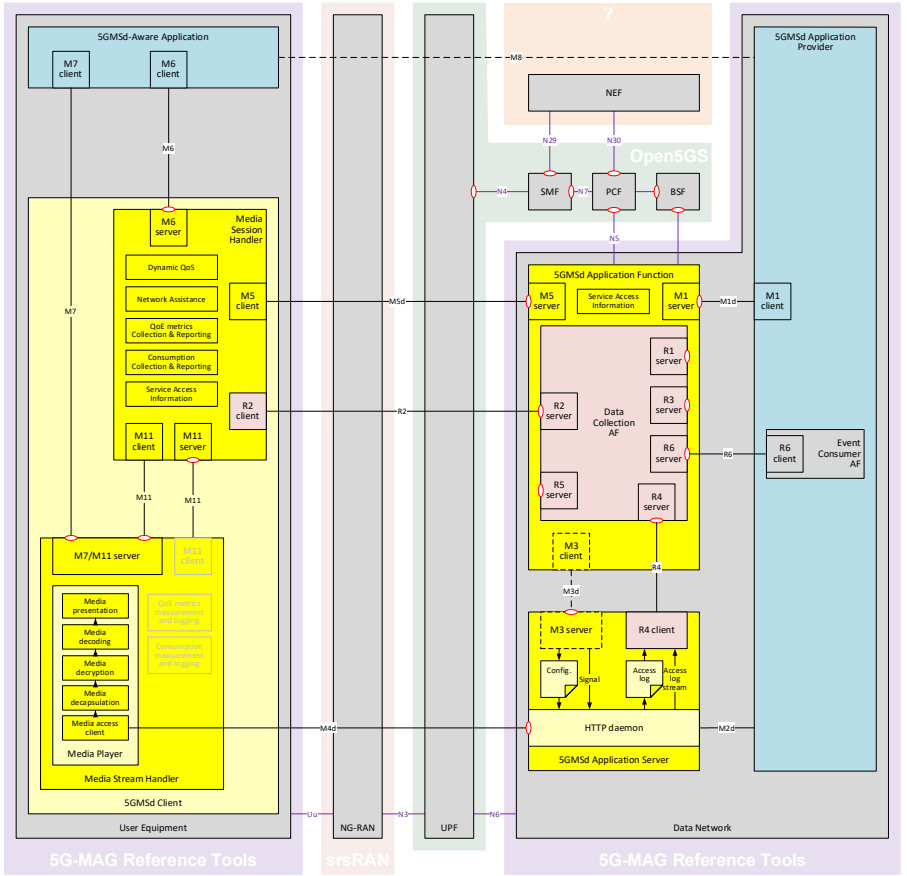
UE data reporting and event exposure for 5G Media Streaming (5GMS)

Integrate Rel-18 DCAF Service Provider library into Rel-17 5GMS AF

Support **two** data report types (**Media Access, ANBR-based Network Assistance**).

Support **five** exposed event types:

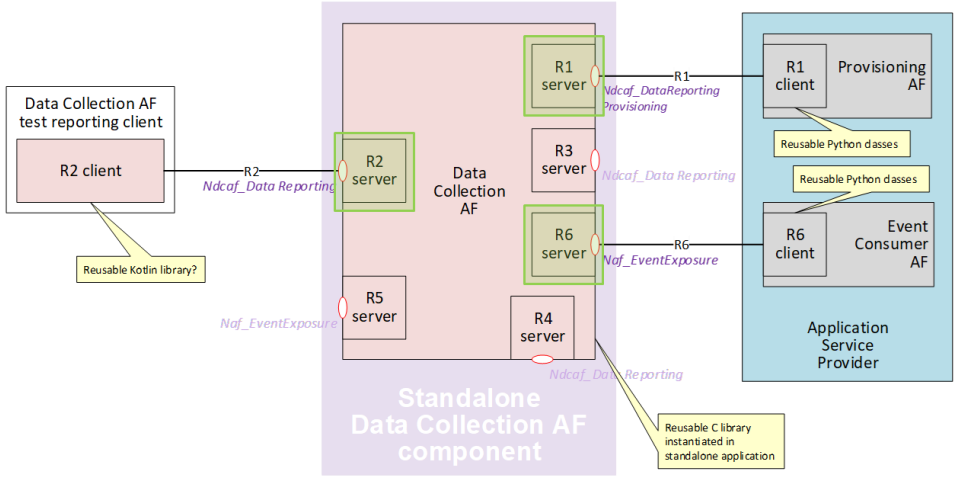
- **Consumption reporting** by the Media Session Handler to the 5GMS AF.
- **QoE metrics reporting** by the Media Session Handler to the 5GMS AF.
- **Dynamic Policy invocations** by the Media Session Handler logged by the 5GMS AF.
- **Network Assistance invocations** by the Media Session Handler logged by the 5GMS AF.
- **5GMS access** logged by the 5GMS AS when the Content Hosting feature is provisioned.



Projects

UE data collection, reporting and event exposure

- **Exposure** of **UE Data** to other **Network Functions** in the 5G System (e.g. NWDAF, third-party AFs,...).
- Implementation of a standalone **Data Collection AF** able to receive generic data reports from the UE and expose them as events to event consumers.
- Implementation in a **shared library** able to be integrated into the 5GMS AF.
- The project complements the **client-side** collection and reporting for **QoE metrics** and **consumption**.



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