3GPP TSG|WG-??? Meeting #nn XX-yyxxxx

Location, Country, Date (revision of xx-yyxxxx)

**Source: Moderator**

**Title: New Study on Architecture for 6G System**

**Document for: Approval**

**Agenda Item: xxx**

3GPP™ Work Item Description

Information on Work Items can be found at <http://www.3gpp.org/Work-Items>
See also the [3GPP Working Procedures](http://www.3gpp.org/specifications-groups/working-procedures), article 39 and the TSG Working Methods in [3GPP TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm)

Title: Study on Architecture for 6G System

{Free text. It has to be the same as in the "Title:" section above. Studies have to start by "Study on"}

Acronym: FS\_6G\_SA\_Arch

Unique identifier:

Potential target Release: Rel-21

# 1 Impacts

{For Normative work, identify the anticipated impacts. For a Study, identify the scope of the study}

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Affects: | UICC apps | ME | AN | CN | Others (specify) |
| Yes | X | x | x | x |  |
| No |  |  |  |  |  |
| Don't know |  |  |  |  |  |

# 2 Classification of the Work Item and linked work items

## 2.1 Primary classification

### This work item is a …

{Tick one or more box(es). The full structure of all existing Work Items is shown in the 3GPP Work Plan in <https://ftp.3gpp.org/Information/WORK_PLAN>}

|  |  |
| --- | --- |
| x | Study  |
|  | Normative – Stage 1 |
|  | Normative – Stage 2 |
|  | Normative – Stage 3 |
|  | Normative – Other\* |

**\* Other = e.g. testing**

## 2.2 Parent Work Item

For a brand-new topic, use “N/A” in the table below. Otherwise indicate the parent Work Item.

|  |
| --- |
| Parent Work / Study Items  |
| Acronym | Working Group | Unique ID | Title (as in 3GPP Work Plan) |
| FS\_6G-REQ | SA WG1 | 1050110 | Study on 6G Use Cases and Service Requirements; Stage 1 |

### 2.3 Other related Work Items and dependencies

|  |
| --- |
| Other related Work /Study Items (if any) |
| Unique ID | Title | Nature of relationship |
| 1060079 | Study on 6G Scenarios and Requirements | The architecture related requirements from RAN may need to be taken into account. |

**Dependency on non-3GPP (draft) specification:**

# 3 Justification

{Free text}

The 6G architecture is firmly grounded in established design principles, aligns with the IMT-2030 vision, and responds directly to the 6G requirements outlined in 3GPP TR 22.870. The proposed study will address critical challenges identified in 5G deployments and pave the way for a more efficient, sustainable, and innovative 6G ecosystem

TBD…

# 4 Objective

{Summary of what is intended to be achieved. Free text}

This study aims to define a new system architecture for 6G mobile networks for improvement of existing services and support of new services. The 6G system architecture shall support new RATs, non 3GPP access types and minimize access dependencies.

The expected work areas will include:

* Investigating of architectural requirements, assumptions and principles for 6G system.
* Targeting a standalone architecture including at least the following aspects:
	+ Study and identify aspects, NFs etc that can be inherited from 5GC, or be redefined in 6GC.
	+ NAS (Non-Access Stratum) evolution.
	+ User Plane evolution.
	+ SBA framework evolution.
	+ QoS framework evolution.
* Migration and interworking with legacy system (at least including 5G)
* Network Slicing to reduce the complexity in both UE and network.
* Common user consent framework to improve the user privacy protection.
* Common framework for all non 3GPP accesses (including WIFI, Fixed broadband access), without dependency on 3GPP access, and potential enhancement on ATSSS.
* Integration of TN and NTN to support ubiquitous connectivity.
* IMS architecture enhancement (including simplification) to support legacy services and new services, e.g. voice, immersive communication, etc.
* Common framework for all modes of integration of sensing and communication.
* Unified Data framework for all data handling including data collection, distribution, processing, storage and exposure.
* Native AI design including both NET4AI and AI4NET to support new services and improve the network efficiency and performance.
* AI Agent communication including identification, authorization, communication management, etc.
* Efficient interaction between local networks, and between local network and PLMN network to meet the vertical requirements.
* Integrated communication and compute framework including the following aspects:
	+ Coordination among UE, core network and applications for offloading traffic
	+ Exposure framework enhancement to support computing services

NOTE: The details of the working area and the dependency between working areas will be discussed and determined during the study.

NOTE: Overlapping between R20 5GA and R20 6G studies shall be avoided

The complete or partial conclusions of this study will form the basis for the normative work and/or for any further study.

During the study, the result of FS\_6G-REQ work and FS\_6G\_RAN\_Scen\_Req work shall be taken into account.

The study shall follow the principles endorsed in SP-25340 at TSG#107(Mar2025) to create a lean and streamlined standards for 6G, e.g., by dimensioning an appropriate set of functionalities, minimizing the adoption of multiple options for the same functionality, avoiding excessive configurations, etc

# 5 Expected Output and Time scale

***{If this WID covers both stage 2 and stage 3, clearly indicate the different completion dates.}***

|  |
| --- |
| New specifications {One line per specification. Create/delete lines as needed} |
| Type  | TS/TR number | Title | For info at TSG#  | For approval at TSG# | Rapporteur |
| {Possible values:"TS" or "Internal TR" or "External TR". See Note 1} | {e.g. "22.XXX" or actual number if known} | {Title of the specification (as per TR 21.801 §6.1.1), to be aligned as much as possible with the WI/SI title} | {e.g. "TSG#87"} | {e.g. "TSG#89"} | {<FamilyName>, <GivenName>, <Company>, <email address>. See Note 2} |
| TR | 23.xxx | Study on Architecture for 6G System | TSG#xx(Dec 2026) | TSG#xx(Mar 2027) | {<FamilyName>, <GivenName>, <Company>, <email address>. See Note 2} |

|  |
| --- |
| Impacted existing TS/TR {One line per specification. Create/delete lines as needed} |
| TS/TR No. | Description of change  | Target completion plenary# | Remarks |
| {e.g. "22.281"} | {Possible values: - either free text (e.g. “CS aspects to be removed") - or “Specification to be withdrawn”} | {e.g. "TSG#89"} | {Free text, e.g. "This TS covers Stage 2" or "This TS covers Stage 3" or "This TS covers both stages 2 and 3"} |
|  |  |  |  |

# 6 Work item Rapporteur(s)

{Mandatory: <FamilyName>, <GivenName>, <Company>, <email address>}

{Optional: <FamilyName>, <GivenName>, <Company>, <email address>: Secondary task(s)}

{The first listed Rapporteur is the work item primary Rapporteur. The role of a Rapporteur is further described in [www.3gpp.org/specifications-groups/delegates-corner/writing-a-new-spec](http://www.3gpp.org/specifications-groups/delegates-corner/writing-a-new-spec). By default, the primary Rapporteur shall ensure the production of the post-completion summary.
Secondary Rapporteur(s) are possible for specific secondary task(s), such as: "Write the post-completion summary"; "In charge of a specific aspect of the work item (specify which)"; "Rapporteur for a secondary responsible WG (specify which)"}

# 7 Work item leadership

SA2

# 8 Aspects that involve other WGs

{This information is provided as best effort assumption, at the time of submission of the WID to TSG approval. It can be later changed without a need to revise the WID.

The “aspects” can be provided by topic (e.g. “security”, “multimedia”) and/or by specifying the WG(s) e.g.: "SA2, SA3, SA5, SA6. CT6 for storage, and potentially SA4". If not applicable, indicate "None" or "None identified yet"}

For a Stage 2 WID requiring Stage 3 to be done by another group: on a best-effort basis, indicate which potential WG is expected to specify the Stage 3: {possible values: "Not applicable", " unknown", "CT WGs", etc}

# 9 Supporting Individual Members

{At least 4 supporting Individual Members are needed. There is an expectation that these companies will provide resources to progress the work. Note that having 4 supporting companies is a necessary but not sufficient condition: the usual TSG approval process by consensus is needed for the WID approval}

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| --- |
| Supporting IM name |
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