**3GPP TSG-SA3 Meeting #124 draft\_S3-253429-r1**

**Wuhan, China, 13 – 17 October 2025**

**Source: ChinaTelecom**

**Title: New key issue on security protection for the NR Femto MS**

**Document for: Approval**

**Agenda item: 6.1.3**

**Spec: TR 33.746**

**Version: v0.0.0**

**Work Item: FS\_NR\_Femto\_Sec\_Ph2**

**Comments**

Add a new key issue on security protection for the NR Femto MS.

\* \* \* First Change \* \* \* \*

## 5.X Key Issue #X: Security protection for the NR Femto MS

### 5.X.1 Key issue details

As defined in clause 4.1 of TS 33.545 [3], an NR Femto node connects to NR Femto Management System (NR Femto MS) directly or connects to NR Femto MS via Security Gateway (SeGW) . The NR Femto MS server may be located inside the operator's access or core network (accessible on the MNO Intranet) or outside of it (accessible on the public Internet). When the NR Femto MS server located outside the operator’s network, it will introduce the public internet exposure and related security risk, e.g. DDoS attack, Vulnerability exploitation attack. When the NR Femto MS server located inside the operator’s network, the NR Femto MS topology shall not be directly exposed to the NR Femto which is missed in TS 33.545 [3]. Therefore, the security protection for the NR Femto MS in the 5GS need to be enhance in Release 20.

### 5.X.2 Security threats

The NR Femto MS may be subjected to attacks such as DDoS and Vulnerability exploitation, as it directly connect to a compromised NR Femto and is exposed to public internet when it located outside the operator’s network.

The NR Femto MS topology may be directly exposed to a compromised NR Femto device when it located inside the operator’s network.

### 5.X.3 Potential security requirements

3GPP shall provide deployment recommendations for NR Femto MS in the 5GS from a security perspective.

NOTE: Recommendation or Mandate to deploy the NR Femto MS server inside the operator’s network and connect to the NR Femto device via SeGW can help strengthen the security of NR Femto MS.

The 5GS shall provide a means to support the topology hiding between the NR Femto and the NR Femto MS when the NR Femto MS is located inside the operator’s network.

\* \* \* End of Changes \* \* \* \*