**3GPP TSG-SA5 Meeting #155 *S5-242681***

Jeju, South Korea, 27 - 31 May 2024

**Source: AsiaInfo**

**Title:** **Add use case for** **network congestion analytics based on UE throughput**

**Document for: Approval, Information, Discussion**

**Agenda Item: 6.19.2**

# 1 Decision/action requested

***In this box give a very clear / short /concise statement of what is wanted.***

# 2 References

[1] 3GPP TR 28.866 v0.1.0 Study on Management Data Analytics (MDA) – Phase 3

# 3 Rationale

This provides the use case for network congestion analytics based on UE throughput.

# 4 Detailed proposal

It proposes to make the following changes to TR 28.866.

|  |
| --- |
| **First Change** |

## 5.6 UE throughput analytics

### 5.6.x Use case X: network congestion analytics based on UE throughput

#### 5.6.X.1 Description

The use case focuses on proactive identification and mitigation of network congestion by analysing UE throughput data.

A surge in user traffic within a specific area, such as a shopping mall, concert venue, or stadium, can lead to network congestion. As user density and data demands increase, cell resources become strained, resulting in a decline in UE throughput. Without timely intervention, congestion intensifies, leading to service degradation and impacting user experience.

The use case leverages MDA to analyse real-time and historical UE throughput performance data to detect and predict congestion. Based on predication results , the MDA may recommend appropriate mitigation measures(e.g. transfer some UE traffic from congested cells to neighboring cells with lighter loads ) to maintain network performance and ensure user experience.

#### 5.6.X.2 Requirements

REQ-CONG-MDA-01: MDA capability for network congestion analytics based on UE throughput should provide the predict of network congestion for various time granularities (e.g., seconds, minutes, hours) and geographical scopes (e.g., cell, cluster, area).

REQ-CONG-MDA-02: MDA capability for network congestion analytics based on UE throughput should recommend appropriate mitigation measures based on prediction results.