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Supplement on multi-connection scenarios

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Supplement on multi-connection scenarios

Summary

This Supplement describes the scenarios, use cases, and benefits of multi-connection, in which a user equipment keeps more than one network connection simultaneously. Multi-connection brings a number of benefits compared to the single connections currently available. This Supplement provides the basis for development of requirements and development of an architecture that supports multi-connection.

Keywords

Multi-connection, Use Case, Scenario, NGN

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Supplement on multi-connection scenarios

1 Scope

This supplement describes the scenarios, use cases, and benefits of multi-connection technology, in which user equipment (UEs) can maintain more than one network connection simultaneously and dynamically distribute traffic flows over more than one network connection simultaneously, either by real-time choice of the user or automatically, based on policies previously agreed to by the subscriber and operator. Multi-connection capabilities permit UEs to take advantage of the flexibility offered by bandwidth aggregation and service transfer to increase reliability and provide robust service.

The goals of this document are first to describe the generic multi-connection scenarios and use cases to illustrate the variability of roles played by the subscriber and operator, and second to summarize the benefits realized by both users and providers of multi-connection service. The requirements and potential solutions to technically achieve the scenarios of multi-connection are out of scope of this document.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this supplement. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this supplement are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this supplement does not give it, as a stand-alone document, the status of a Recommendation.

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| [ITU-T Q.1706/Y.2801] | ITU-T Recommendation Q.1706/Y.2801 (2006), <i>Mobility management requirements for NGN</i> . |
| [ITU-T Y.2011] | ITU-T Recommendation Y.2011 (2004), <i>General principles and general reference model for Next Generation Networks</i> . |
| [ITU-T Y.2012] | ITU-T Recommendation Y.2012 (2006), <i>Functional requirements and architecture of the NGN</i> . |
| [ITU-T Y.2051] | ITU-T Recommendation Y.2051 (2008), <i>General overview of IPv6-based NGN</i> . |
| [ITU-T Y.2052] | ITU-T Recommendation Y.2052 (2008), <i>Framework of multi-homing in IPv6-based NGN</i> . |
| [ITU-T Y.2091] | ITU-T Recommendation Y.2091 (2007), <i>Terms and definitions for Next Generation Networks</i> . |
| [ITU-T X.200] | ITU-T Recommendation ITU-T X.200 (2007), <i>Information technology - Open Systems Interconnection - Basic Reference Model: The basic model</i> |

3 Definitions

3.1 Terms defined elsewhere