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Contents

Foreword

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y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

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Introduction

The present document is part of a TS-family covering the 3rd Generation Partnership Project Technical Specification Group Services and System Aspects, Telecommunication management; as identified below:

32.541: "Self-Organizing Networks (SON); Self-Healing Concepts and Requirements"

Stage 2 for Self-Healing is not in a TS of its own. Stage 2 for selected Self-Healing functions is or will be part of 32.522 [6] and 32.762 [7].

1 Scope

The present document describes concept and requirements of OAM for Self-Healing of Self-Organizing Networks (SON).

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
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[1]. 3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".

[2] 3GPP TS 32.102: "Telecommunication management; Architecture".

[3] 3GPP TS 32.111-1: "Telecommunication management; Fault Management; Part 1: 3G fault management requirements".

[4] 3GPP TS 32.301: "Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Requirements".

[5] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[6] 3GPP TS 32.522: "Telecommunication management; Self-Organizing Networks (SON) Policy Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)"

[7] 3GPP TS 32.762: "Telecommunication management; Evolved Universal Terrestrial Radio Access Network (E-UTRAN) Network Resource Model (NRM) Integration Reference Point (IRP); Information Service (IS)"

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TR 21.905 [5] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [5].

alarm: See 3GPP TS 32.111-1 [3].

Cell Outage: Cell outage is the total loss of radio services in the coverage area of a cell.

fault: See 3GPP TS 32.111-1 [3].

Stop condition: The Self-healing procedure may include one or more iterations until the related fault is resolved or the thresholds of some parameters (e.g. iteration counter or iteration duration time, etc.) are reached. These thresholds may be used to determine whether to stop the procedure if the related fault is still not resolved after several iterations or a long time. We call these thresholds as well as fault resolution the stop conditions.

Self-healing Process: When a TCoSH is reached, particular action(s) will be triggered to solve or mitigate the particular fault.