

# ETSI TS 142 043 V15.0.0 (2018-07)



**Digital cellular telecommunications system (Phase 2+) (GSM);  
Support of Localised Service Area (SoLSA);  
Service description;  
Stage 1  
(3GPP TS 42.043 version 15.0.0 Release 15)**



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Reference

RTS/TSGS-0142043vf00

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Keywords

GSM

**ETSI**

650 Route des Lucioles  
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

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# Foreword

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# 1 Scope

This technical specification, specifies a mechanism, which can be used as a platform for providing special tariffs and/or special set of service features for certain subscribers within a regionally restricted area or areas.

The motivation for this concept is to create means for network operators to build new service and tariff packages, which take into account subscriber groups and their needs.

The localised service area is both an optional network feature and an optional UE feature. Usage and implementation of the different SoLSA service features may vary according to operator's service packages.

This feature is not intended to replace the existing method of cell selection, cell indication and handover.

“Support of Localised service area (SoLSA)” is renamed Phase 2+ item “Support of Home Area Priority”

Note: The present document covers description for GERAN support only. UTRAN support will be added in latter releases.

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# 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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## 2.1 Normative references

- [1] 3GPP TS 22.011: " Service accessibility ".

## 2.2 Informative references

- [2] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

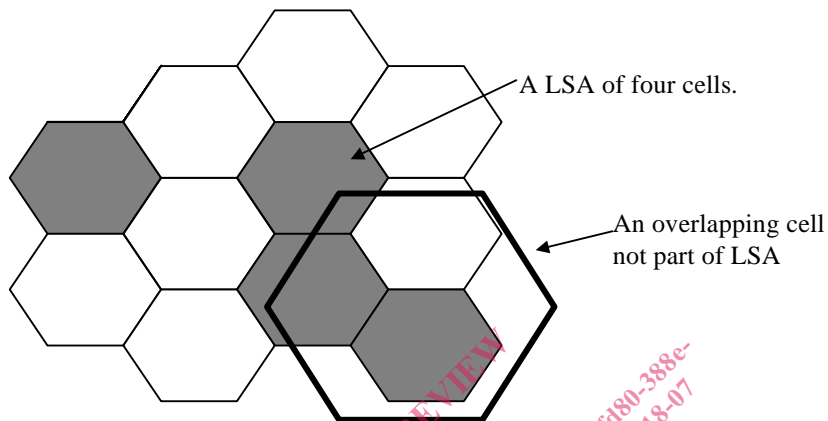
### 3 Definitions and abbreviations

#### 3.1 Definitions

**Localised Service Area (LSA):**

A localised service area consists of a cell or a number of cells within a PLMN.

Cells being part of different localised service areas may have overlapping coverage areas. The cells constituting a localised service area may not necessarily provide continuous coverage.



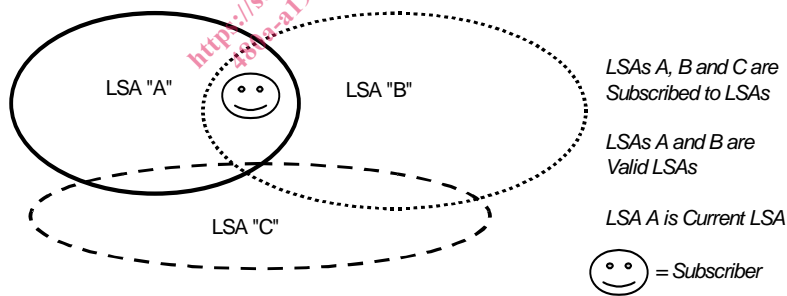
**Figure 1: Localised Service Area**

**Subscribed to LSA:** Set of LSAs, which the user has subscribed to

**Valid LSA:** A LSA, which the user has subscribed to and his UE can receive service.

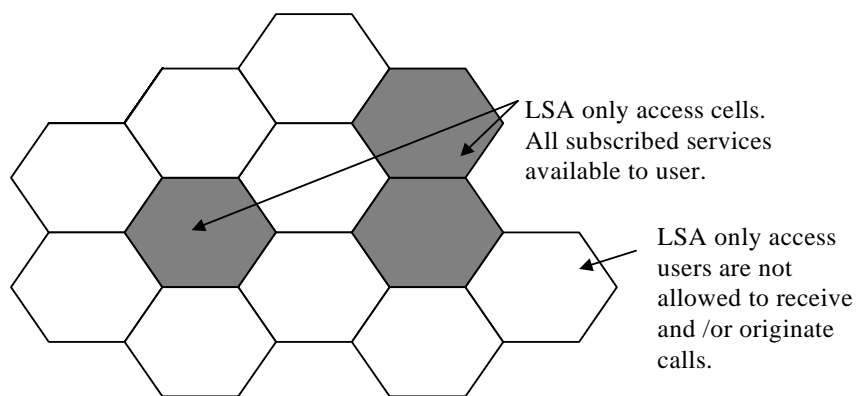
**Current LSA:** The LSA where a UE is receiving service.

**LSA Priority:** Priority of subscriber's LSAs. When the user has several valid LSAs, the current LSA shall be selected by prioritising LSAs in case of overlapping LSAs.



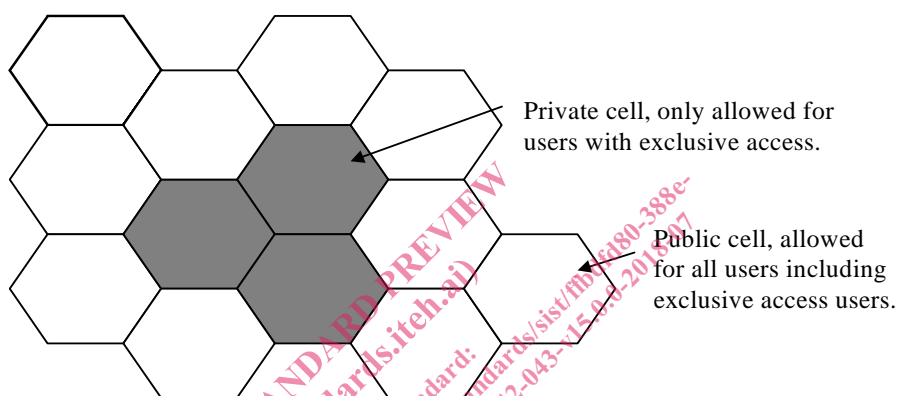
**Figure 2: Localised Service Areas**

**LSA only access:** LSA user is allowed to access PLMN within his allowed LSAs. LSA user is not allowed to receive and/or originate a call outside LSA area.



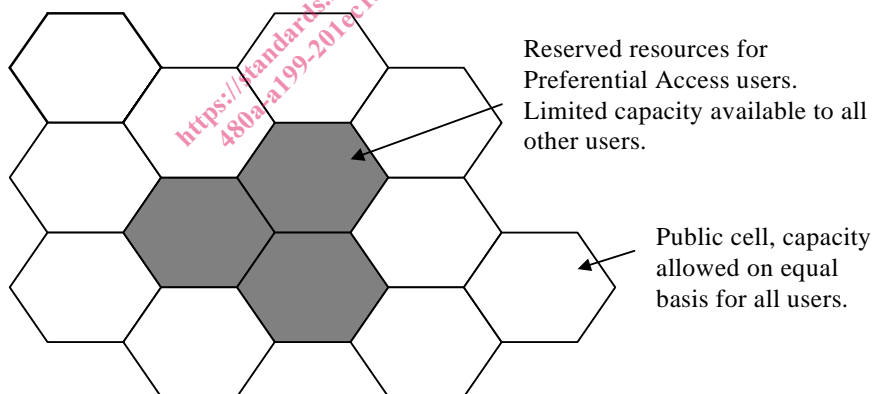
**Figure 3: LSA only access**

**Exclusive Access:** Access to exclusive access cells is restricted to defined LSA subscribers.



**Figure 4: Exclusive Access**

**Preferential Access:** LSA user shall have preferential access to resources of LSA cells, compared to non-LSA users.



**Figure 5: Preferential Access**

### 3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

LSA                      Localised Service Area

Further abbreviations may be found in TR 21.905 [2].



## 4 Description

The localised service area concept shall give the operator the basis to offer subscribers different services (e.g. tariffs or access rights) depending on the location of the subscriber.

### 4.1 Defining subscriber information for localised service area

A subscriber can have up to 20 LSAs per PLMN.

It shall be possible to assign localised service areas to subscribers. Subscriber may have service, which contains several LSAs potentially belonging to different PLMNs. There shall be means to allocate LSA priority to each subscriber independently by operator.

Localised service areas for subscriber(s) may overlap, i.e. one cell may be part of several LSAs belonging to that subscriber.

As an example, within a hierarchical cell structure, cells in different layers can constitute different localised service areas. A localised service area could be defined so that it is possible to establish flexible sized areas, which are applicable to

- a very small localised service area ("home area" covering one or several cells dedicated e.g. to a residential subscriber or a company); or
- a large area covering a part of the city (one or several location areas); or
- a combination of these.

Thus it is possible to use the various radio network configurations.

The definition of location areas and the definition of localised service areas may be independent of each other.

### 4.2 Service Features

Following service features are building blocks for SoLSA based services. It is up to the operator to decide which service features are required for a specific service.

- Localised service area indication.
- Localised service area support in idle mode (camping).
- Localised service area support in active mode (handover).
- LSA only access.
- Exclusive access.
- Preferential access.

#### 4.2.1 Localised service area indication

It shall be possible to assign a subscriber defined identifier by the operator to each LSA (alphanumeric text up to 10 characters), which can be provided to the user in idle and active mode. As a UE manufacturer option the user may assign an icon or another form of indication to each LSA.

It shall be possible to indicate a change of localised service area during idle and active mode.

The indication is a network option (activated/deactivated by the network).