

Source: TSG_N WG 5
Title: CRs to R99 Work Item OSA - corrections to 29.198 cont.
Agenda item: 8.23.5
Document for: APPROVAL

Introduction:

This document contains 11 CRs on R99 Work Item **OSA** that has been agreed by TSG_N WG5, and is forwarded to TSG_N Plenary meeting #9 for approval.

| Spec | CR | Rev | Doc-2nd-Level | Phase | Subject | Cat | Ver_C | Ver_N |
|--------|-----|-----|---------------|-------|--|-----|-------|-------|
| 29.198 | 014 | 1 | N5-000141 | R99 | Alignment of Framework with Parlay 2.1, missing service properties parameter in getServiceManager() operation of IpSvcFactory. | F | 3.0.0 | 3.1.0 |
| 29.198 | 015 | 1 | N5-000142 | R99 | Alignment of Framework with Parlay 2.1 undefined datatype in endaccess operation of IpAccess. | F | 3.0.0 | 3.1.0 |
| 29.198 | 016 | 1 | N5-000143 | R99 | Alignment of Framework with Parlay 2.1, service and interface naming correction. | F | 3.0.0 | 3.1.0 |
| 29.198 | 017 | 1 | N5-000144 | R99 | Alignment of Framework with Parlay 2.1, renaming of TpPropertyStruct to TpServiceTypeProperty | F | 3.0.0 | 3.1.0 |
| 29.198 | 018 | 1 | N5-000145 | R99 | Alignment of Framework with Parlay 2.1 addition of DES 128 bit authentication. | F | 3.0.0 | 3.1.0 |
| 29.198 | 019 | 2 | N5-000175 | R99 | Alignment of Framework with Parlay 2.1, improvement of load statistic data-types. | F | 3.0.0 | 3.1.0 |
| 29.198 | 020 | 1 | N5-000147 | R99 | Correction in descriptive text for Call STD regarding user interaction in 2 Parties in Call State. | F | 3.0.0 | 3.1.0 |
| 29.198 | 021 | | N5-000151 | R99 | "Removal of double description of the type TpCallServiceCode". | F | 3.0.0 | 3.1.0 |
| 29.198 | 022 | 1 | N5-000177 | R99 | Removal of the unused type TpUIMessageCriteria | F | 3.0.0 | 3.1.0 |
| 29.198 | 023 | | N5-000176 | R99 | Alignment of Framework with Parlay 2.1, addition of setCallbackWithSessionID operation to IpService. | F | 3.0.0 | 3.1.0 |
| 29.198 | 024 | | N5-000174 | R99 | Clarification of life time of parameters in TpAuthDomain | F | 3.0.0 | 3.1.0 |

6.2.5 Service Factory

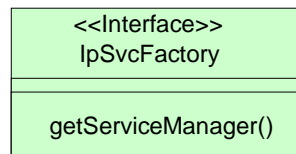
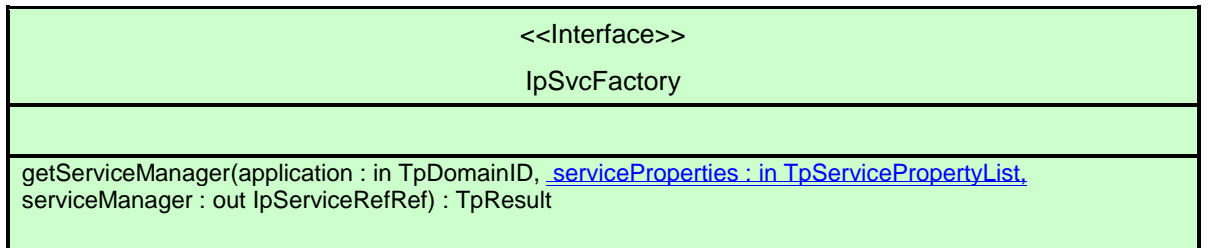


Figure 6-8: Service Factory Class Diagram



9.2.4 Registration IDL

```

#include <fw.idl>

module org{
  module threegpp{
    module osa{
      module fw{
        module registration{

          /*****
          /
          //                               Interface definitions
          //
          /*****

          /* The Service Registration Framework interface provides the methods used for the
          registration
          of network SCFs at the Framework. */
          interface IpServiceRegistration : IpOsa {

            /* This method is used to register a SCF in the Framework, for subsequent
            discovery by
            the applications. */
            void registerService (
              in TpServiceTypeName          serviceTypeName,

              in TpServicePropertyList      servicePropertyList,
              out TpServiceID               serviceID
            ) raises (TpGeneralException);

            /* This method informs the Framework of the availability of a service factory for
            a
            previously registered SCF. */
            void announceServiceAvailability (
              in TpServiceID               serviceID,
              in IpOsa                    serviceFactory
            ) raises (TpGeneralException);

            /* This method is used to remove a registered SCF from the Framework. */
            void unregisterService (
              in TpServiceID               serviceID
            ) raises (TpGeneralException);

            /* This method is used to obtain the description of a certain SCF as it was
            registered in
            the Framework. */
            void describeService (
              in TpServiceID               serviceID,
              out TpServiceDescription      serviceDescription
            ) raises (TpGeneralException);
          };

          /* The Service Factory Framework interface provides the Framework with access to a
          manager
          of a network SCF to be given to an application. */
          interface IpSvcFactory : IpOsa {

            /* This method returns an SCF manager interface reference for a specified
            application. */
            void getServiceManager (
              in TpClientAppID             application,
              in TpServicePropertyList    serviceProperties,
              out IpOsa                    serviceManager
            ) raises (TpGeneralException);
          };
        };
      };
    };
  };
};

```


6.2.3.4 IpAccess

| |
|---|
| <<Interface>> IpAccess |
| <pre> obtainInterface(interfaceName: in TpInterfaceName, fwInterface: out IpOsaRefRef): TpResult obtainInterfaceWithCallback(interfaceName: in TpInterfaceName, applInterface: in IpOsaRef, fwInterface: out IpOsaRefRef): TpResult accessCheck(serviceToken: in TpServiceToken,securityContext:: in TpString, securityDomain: in TpString, group : in TpString, serviceAccessTypes: in TpString, serviceAccessControl: out TpServiceAccessControlRef): TpResult selectService(serviceID: in TpServiceID, serviceProperties: in TpServicePropertyList, serviceToken: out TpServiceTokenRef): TpResult signServiceAgreement(serviceToken: in TpServiceToken, agreementText: in TpString, signingAlgorithm: in TpSigningAlgorithm, signatureAndServiceMgr: out TpSignatureAndServiceMgrRef): TpResult terminateServiceAgreement(serviceToken: in TpServiceToken, terminationText: in TpString, digitalSignature: in TpString): TpResult endAccess(endAccessProperties: in TpEndAccessPropertiesTpPropertyList) : TpResult </pre> |

8.2 Framework Data Definitions

8.2.1.4 TpEntOpIDList

This data type defines a Numbered Set of Data Elements of type TpEntOpID.

[TpPropertyName](#)

[This data type is identical to TpString. It is the name of a generic “property”.](#)

[TpPropertyValue](#)

[This data type is identical to TpString. It is the value \(or the list of values\) associated with a generic “property”.](#)

[TpProperty](#)

[This data type is a Sequence of Data Elements which describes a generic “property”. It is a structured data type consisting of the following {name,value} pair:](#)

| <u>Sequence Element Name</u> | <u>Sequence Element Type</u> |
|--|--|
| <u>PropertyName</u> | <u>TpPropertyName</u> |
| <u>PropertyValue</u> | <u>TpPropertyValue</u> |

[TpPropertyList](#)

[This data type defines a Numbered List of Data Elements of type TpProperty.](#)

8.2.2.4 TpAuthCapabilityList

This data type is identical to a TpString. It is a string of multiple TpAuthCapability concatenated using a comma (,) as the separation character.

TpEndAccessProperties

This data type is of type TpPropertyList. It identifies the actions that the framework should perform when an application or service capability feature entity ends its access session (e.g. existing service capability or application sessions may be stopped, or left running).

9.2 Framework IDL

9.2.1 Common Data Types for the Framework

```
#include <OSA.idl>

module org{
  module threegpp{
    module osa{
      module fw{

        typedef TpString      TpClientAppID;          // Identifies the client appl to the
            framework.

        typedef sequence      <TpClientAppID> TpClientAppIDList;

        typedef TpString TpEntOpID;

        typedef sequence < TpEntOpID >          TpEntOpIDList;

        typedef TpString TpPropertyName;
        typedef TpString TpPropertyValue;
        typedef sequence < TpProperty > TpPropertyList;

        struct TpProperty {
                TpPropertyName      PropertyName;
                TpPropertyValue   PropertyValue;
        };

        typedef TpString TpServiceID;          // A string of characters, generated automatically
            by the
            // Framework and comprising a TpUniqueServiceNumber,
            // TpServiceNameString, and a number of relevant
            // TpServiceSpecString, concatenated using a forward
            // separator (/), that uniquely identifies an
            instance of a
            // SCF interface.
        ...
      }
    }
  }
}
```

9.2.3 Trust and Security Management IDL

```
#include <fw.idl>

module org{
  module threegpp{
    module osa{
      module fw{
        module trust_and_security{

          /*****
          /
```

```

//          //          Data definitions
//          //          /*****
//          //          /
//          //          typedef TpString          TpAccessType;          // The type of access interface
//          //          requested by the client
//          //          // application. For OSA release 99 the following
//          //          values
//          //          // have been defined: NULL (indicates the default
//          //          access
//          //          // type) and P_ACCESS.
//          //          typedef TpString          TpAuthType;          // The type of
//          //          authentication mechanism requested by the
//          //          // client. For OSA release 99 the following values
//          //          have
//          //          // been defined: NULL (indicates OSA authentication),
//          //          // P_AUTHENTICATION (indicates use of the OSA
//          //          // authentication interfaces.
//          //          typedef TpString          TpAuthCapability;          // The authentication capabilities
//          //          that could be supported
//          //          // by the OSA. For OSA release 99 the following
//          //          values
//          //          // have been defined: NULL (indicates no client
//          //          // capabilities, P_DES_56, P_RSA_512 and P_RSA_1024).
//          //          typedef TpString          TpAuthCapabilityList; // A string of multiple
//          //          TpAuthCapability
//          //          // concatenated using a commas.
//          //          typedef TpPropertyList TpEndAccessProperties;

```

..

**3GPP Meeting CN5 #5
Bristol, 5-7 Sept 2000**

Document N5-000143

e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

| | | | | |
|---|--|--|--|--|
| CHANGE REQUEST | | | | Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly. |
| 29.198 CR 016R1 | | Current Version: 3.0.0 | | |
| GSM (AA.BB) or 3G (AA.BBB) specification number ↑ | | ↑ CR number as allocated by MCC support team | | |
| For submission to: CN#09 | for approval <input checked="" type="checkbox"/> | for information <input type="checkbox"/> | strategic <input type="checkbox"/> | (for SMG use only) |
| list expected approval meeting # here ↑ | | | non-strategic <input type="checkbox"/> | |

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

Proposed change affects: (U)SIM ME UTRAN / Radio Core Network
(at least one should be marked with an X)

Source: N5 **Date:** 27 August 2000

Subject: Alignment of Framework with Parlay 2.1, service and interface naming correction.

Work item: OSA

| | | | |
|---|--|-----------------|--|
| Category: | F Correction <input checked="" type="checkbox"/> | Release: | Phase 2 <input type="checkbox"/> |
| (only one category shall be marked with an X) | A Corresponds to a correction in an earlier release <input type="checkbox"/> | | Release 96 <input type="checkbox"/> |
| | B Addition of feature <input type="checkbox"/> | | Release 97 <input type="checkbox"/> |
| | C Functional modification of feature <input type="checkbox"/> | | Release 98 <input type="checkbox"/> |
| | D Editorial modification <input type="checkbox"/> | | Release 99 <input checked="" type="checkbox"/> |
| | | | Release 00 <input type="checkbox"/> |

Reason for change: The FW of TS 29.198 contains a few differences compared to Parlay 2.1, mainly in the area of different parameter names and data-types. The naming of services (Service Capability Features) and interfaces (Framework capability features) is incorrect in TS 29.198.

Clauses affected: 8.2, 9.2

| | | | |
|------------------------------|--|----------------|--|
| Other specs affected: | Other 3G core specifications <input type="checkbox"/> | → List of CRs: | |
| | Other GSM core specifications <input type="checkbox"/> | → List of CRs: | |
| | MS test specifications <input type="checkbox"/> | → List of CRs: | |
| | BSS test specifications <input type="checkbox"/> | → List of CRs: | |
| | O&M specifications <input type="checkbox"/> | → List of CRs: | |

Other comments:



help.doc

<----- double-click here for help and instructions on how to create a CR.

8.2 Framework Data Definitions

8.2.1.11 TpServiceNameString

This data type is identical to a TpString, and is defined as a string of characters that uniquely identifies the name of an SCF interface. Other Network operator specific capabilities may also be used, but should be preceded by the string "SP_". The following values are defined for OSA release 99.

| Character String Value | Description |
|-------------------------|--|
| NULL | An empty (NULL) string indicates no SCF name |
| P_CALL_CONTROL | The name of the Call Control SCF |
| P_USER_INTERACTION | The name of the User Interaction SCFs |
| P_TERMINAL_CAPABILITIES | The name of the Terminal Capabilities SCF |
| P_USER_LOCATION_CAMEL | The name of the Network User Location SCF |
| P_USER_STATUS | The name of the User Status SCF |
| P_DATA_SESSION_CONTROL | The name of the Data Session Control SCF |

8.2.2.5 TpInterfaceName

This data type is identical to a TpString, and is defined as a string of characters that identify the names of the framework SCFs that are supported by the OSA API. Other Network operator specific SCFs may also be used, but should be preceded by the string "SP_". The following values are defined for OSA release 99.

| Character String Value | Description |
|--|--|
| NULL | An empty (NULL) string indicates no interface. |
| P_DISCOVERY | The name for the Discovery interface. |
| P_OAM | The name for the OA&M interface. |
| P_TRUST_AND_SECURITY_MANAGEMENT | The name for the Trust and Security Management interface. |
| P_INTEGRITY_MANAGEMENT | The name for the Integrity Management interface. |
| <u>P_LOAD_MANAGER</u> | <u>The name for the Load Manager interface.</u> |
| <u>P_FAULT_MANAGER</u> | <u>The name for the Fault Manager interface.</u> |
| <u>P_HEARTBEAT_MANAGEMENT</u> | <u>The name for the Heartbeat Management interface.</u> |
| <u>P_REGISTRATION</u> | <u>The name for the Service Registration interface.</u> |

9.2 Framework IDL

9.2.1 Common Data Types for the Framework

```
#include <OSA.idl>

module org{
module threegpp{
module osa{
module fw{

    typedef TpString      TpClientAppID;          // Identifies the client appl to the
        framework.

    typedef sequence      <TpClientAppID> TpClientAppIDList;

    typedef TpString TpEntOpID;

    typedef sequence < TpEntOpID >          TpEntOpIDList;

    typedef TpString TpServiceID;           // A string of characters, generated automatically
        by the
        // Framework and comprising a TpUniqueServiceNumber,
        // TpServiceNameString, and a number of relevant
        // TpServiceSpecString, concatenated using a forward
        // separator (/), that uniquely identifies an
        // instance of a
        // SCF interface.

    typedef sequence <TpServiceID>          TpServiceIDList;

    typedef TpString      TpServiceNameString;    // Uniquely identifies the
name of an SCF
        // interface. For OSA release 99 the
        // following
        // values have been defined: NULL (no SCF
        // name),
        // P_CALL_CONTROL, P_USER_INTERACTION,
        // P_USER_LOCATION_CAMEL,
        // P_TERMINAL_CAPABILITIES and
        // P_USER_STATUS.

    ..

```

9.2.3 Trust and Security Management IDL

```
#include <fw.idl>

module org{
module threegpp{
module osa{
module fw{
module trust_and_security{

    /*****
    /
    //                               Data definitions
    //
    /*****
    /

    typedef TpString      TpAccessType;          // The type of access interface
requested by the client
        // application. For OSA release 99 the following
        // values

```

```

// have been defined: NULL (indicates the default
access
// type) and P_ACCESS.

typedef TpString TpAuthType; // The type of
authentication mechanism requested by the
// client. For OSA release 99 the following values
have
// been defined: NULL (indicates OSA authentication),
// P_AUTHENTICATION (indicates use of the OSA
// authentication interfaces.

typedef TpString TpAuthCapability; // The authentication capabilities
that could be supported
// by the OSA. For OSA release 99 the following
values
// have been defined: NULL (indicates no client
// capabilities, P_DES_56, P_RSA_512 and P_RSA_1024).

typedef TpString TpAuthCapabilityList; // A string of multiple
TpAuthCapability
// concatenated using a commas.

typedef TpString TpInterfaceName; // Identifies the names of the
framework SCFs that are be
// supported by the OSA API. For release 99 these are
NULL,
// P_DISCOVERY, P_OAM,
// P_LOAD_MANAGER,
// P_FAULT_MANAGER,
// P_HEARTBEAT_MANAGEMENT,
// P_REGISTRATION P_TRUST_AND_SECURITY_MANAGEMENT
// P_INTEGRITY_MANAGEMENT.

```


8.2.1.14 TpServiceTypePropertyStruct

~~This data type is a Sequence of Data Elements which describes an SCF property. It consists of:~~ This data type is a Sequence of Data Elements which describes a service property associated with a service type. It defines the name and mode of the service property, and also the service property type: e.g. boolean, integer. It is similar to, but distinct from, TpServiceProperty. The latter is associated with an actual service: it defines the service property's name and mode, but also defines the list of values assigned to it.

| Sequence Element Name | Sequence Element Type | Documentation |
|-------------------------|---------------------------|---------------|
| ServicePropertyName | TpServicePropertyTypeName | |
| ServicePropertyMode | TpServicePropertyMode | |
| ServicePropertyTypeName | TpServicePropertyTypeName | |

8.2.1.15 TpServiceTypePropertyStructList

This data type defines a Numbered Set of Data Elements of type TpServiceTypePropertyStruct.

8.2.1.24 TpServiceTypeDescription

This type is left as a placeholder but is not used in release 99.

This data type is a Sequence_of_Data_Elements which describes an SCF type. It is a structured data type. It consists of:

| Sequence Element Name | Sequence Element Type | Documentation |
|---|---------------------------------|---|
| ServiceTypePropertyStruct List | TpServiceTypePropertyStructList | a sequence of property name and property mode tuples associated with the SCF type |
| ServiceTypeNameList | TpServiceTypeNameList | the names of the super types of the associated SCF type |
| EnabledOrDisabled | TpBoolean | an indication whether the SCF type is enabled or disabled |

9.2 Framework IDL

9.2.1 Common Data Types for the Framework

```

#include <OSA.idl>

module org{

module threegpp{

module osa{

module fw{

    ..

    struct TpServiceDescription { // Describes the properties of a
registered SCF.
        TpServiceTypeName      ServiceTypeName;
        TpServicePropertyList  ServicePropertyList;
    };

|   struct TpServiceTypePropertyPropertyStruct { // Describes
| a SCF property.
|       TpServicePropertyTypeName      ServicePropertyName;
|       TpServicePropertyMode          ServicePropertyMode;
|       TpServicePropertyTypeName      ServicePropertyTypeName;
|   };

|   typedef sequence <TpServiceTypePropertyPropertyStruct>
|   TpServiceTypePropertyPropertyStructList;

|   struct TpServiceTypeDescription { // Describes a SCF type.
|       TpServiceTypePropertyPropertyStructList
|       ServiceTypePropertyPropertyStructList;
|       TpServiceTypeNameList          ServiceTypeNameList;
|       TpBoolean                       EnabledOrDisabled;
|   };

};};};};

```

**3GPP Meeting CN5 #5
Bristol, 5-7 Sept 2000**

Document N5-000145

e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

| | | | |
|---|--|--|--|
| CHANGE REQUEST | | | Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly. |
| 29.198 | CR | 018R1 | Current Version: 3.0.0 |
| GSM (AA.BB) or 3G (AA.BBB) specification number ↑ | | ↑ CR number as allocated by MCC support team | |
| For submission to: CN#09 | for approval <input checked="" type="checkbox"/> | strategic <input type="checkbox"/> | (for SMG use only) |
| list expected approval meeting # here ↑ | for information <input type="checkbox"/> | non-strategic <input type="checkbox"/> | |

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

Proposed change affects: (U)SIM ME UTRAN / Radio Core Network
(at least one should be marked with an X)

Source: N5 **Date:** 27 August 2000

Subject: Alignment of Framework with Parlay 2.1 addition of DES 128 bit authentication.

Work item: OSA

| | | | |
|------------------|--|-----------------|--|
| Category: | F Correction <input checked="" type="checkbox"/> A Corresponds to a correction in an earlier release <input type="checkbox"/> B Addition of feature <input type="checkbox"/> C Functional modification of feature <input type="checkbox"/> D Editorial modification <input type="checkbox"/> | Release: | Phase 2 <input type="checkbox"/> Release 96 <input type="checkbox"/> Release 97 <input type="checkbox"/> Release 98 <input type="checkbox"/> Release 99 <input checked="" type="checkbox"/> Release 00 <input type="checkbox"/> |
|------------------|--|-----------------|--|

(only one category shall be marked with an X)

Reason for change: The FW of TS 29.198 contains a few differences compared to Parlay 2.1, mainly in the area of different parameter names and data-types. In TS 29.198 the DES 128 bit authentication capability is missing.

Clauses affected: 8.2, 9.2

| | | |
|------------------------------|--|--|
| Other specs affected: | Other 3G core specifications <input type="checkbox"/> → List of CRs: Other GSM core specifications <input type="checkbox"/> → List of CRs: MS test specifications <input type="checkbox"/> → List of CRs: BSS test specifications <input type="checkbox"/> → List of CRs: O&M specifications <input type="checkbox"/> → List of CRs: | |
|------------------------------|--|--|

Other comments:



<----- double-click here for help and instructions on how to create a CR.

8.2.2.3 TpAuthCapability

This data type is identical to a TpString, and is defined as a string of characters that identify the authentication capabilities that could be supported by the OSA. Other Network operator specific capabilities may also be used, but should be preceded by the string "SP_". Capabilities may be concatenated, using commas (,) as the separation character. The following values are defined for OSA release 99.

| String Value | Description |
|---------------------------|---|
| <i>NULL</i> | An empty (NULL) string indicates no client capabilities. |
| P_DES_56 | A simple transfer of secret information that is shared between the client application and the framework with protection against interception on the link provided by the DES algorithm with a 56bit shared secret key |
| P_DES_128 | A simple transfer of secret information that is shared between the client entity and the framework with protection against interception on the link provided by the DES algorithm with a 128bit shared secret key |
| P_RSA_512 | A public-key cryptography system providing authentication without prior exchange of secrets using 512 bit keys |
| P_RSA_1024 | A public-key cryptography system providing authentication without prior exchange of secrets using 1024bit keys |

9.2.3 Trust and Security Management IDL

```

#include <fw.idl>

module org{
  module threegpp{
    module osa{
      module fw{
        module trust_and_security{

          /*****
          /
          //                               Data definitions
          //
          /*****
          /

          typedef TpString          TpAccessType;          // The type of access interface
          requested by the client

          // application. For OSA release 99 the following
          // values
          // have been defined: NULL (indicates the default
          // access
          // type) and P_ACCESS.

          typedef TpString          TpAuthType;            // The type of
          authentication mechanism requested by the
          // client. For OSA release 99 the following values
          // have
          // been defined: NULL (indicates OSA authentication),
          // P_AUTHENTICATION (indicates use of the OSA
          // authentication interfaces.

          typedef TpString          TpAuthCapability;      // The authentication capabilities
          that could be supported

          // by the OSA. For OSA release 99 the following
          // values
          // have been defined: NULL (indicates no client
          // capabilities, P_DES_56, P\_DES\_128, P_RSA_512 and
          P_RSA_1024).

```


8.2.3.12 TpLoadPolicy

Defines the load balancing policy.

| Sequence Element Name | Sequence Element Type |
|-----------------------|-----------------------|
| LoadPolicy | TpString |

8.2.3.13 ~~TpLoadStatistic~~

~~Defines the Sequence of Data Elements that specify the load statistic record at given timestamp.~~

| Sequence Element Name | Sequence Element Type |
|----------------------------------|----------------------------------|
| ServiceID | TpServiceID |
| LoadValue | TpFloat |
| LoadLevel | TpLoadLevel |
| TimeStamp | TpDateAndTime |

~~LoadValue is expressed in percentage.~~

8.2.3.14 ~~TpLoadStatList~~

~~Defines a Numbered Set of Data Elements of TpLoadStatistic.~~

8.2.3.15 ~~TpLoadStatusError~~

~~Defines the error code for getting the load status.~~

| Name | Value | Description |
|--|------------------|--|
| LOAD_STATUS_ERROR_UNDEFINED | 0 | Undefined error |
| LOAD_STATUS_ERROR_UNAVAILABLE | 1 | Unable to get the load status |

8.2.3.16 ~~TpLoadStatisticError~~

~~Defines the Sequence of Data Elements that specify the error for getting the load status at given timestamp.~~

| Sequence Element Name | Sequence Element Type |
|----------------------------------|----------------------------------|
| ServiceID | TpServiceID |
| LoadStatusError | TpFloat |
| TimeStamp | TpDateAndTime |

8.2.3.17 ~~TpLoadStatisticErrorList~~

~~Defines a Numbered Set of Data Elements of TpLoadStatisticsError.~~

TpLoadStatistic

Defines the Sequence of Data Elements that represents a load statistic record for a specific entity (i.e. framework, service or application) at a specific date and time.

| <u>Sequence Element Name</u> | <u>Sequence Element Type</u> |
|------------------------------|--------------------------------|
| <u>LoadStatisticEntityID</u> | <u>TpLoadStatisticEntityID</u> |
| <u>TimeStamp</u> | <u>TpDateAndTime</u> |
| <u>LoadStatisticInfo</u> | <u>TpLoadStatisticInfo</u> |

TpLoadStatisticList

Defines a Numbered List of Data Elements of type TpLoadStatistic.

TpLoadStatisticData

Defines the Sequence of Data Elements that represents load statistic information

| <u>Sequence Element Name</u> | <u>Sequence Element Type</u> |
|------------------------------|------------------------------|
| <u>LoadValue</u> | <u>TpFloat</u> |
| <u>LoadLevel</u> | <u>TpLoadLevel</u> |

Note: LoadValue is expressed as a percentage.

TpLoadStatisticEntityID

Defines the Tagged Choice of Data Elements that specify the type of entity (i.e. service, application or framework) providing load statistics.

| <u>Tag Element Type</u> |
|----------------------------------|
| <u>TpLoadStatisticEntityType</u> |

| <u>Tag Element Value</u> | <u>Choice Element Type</u> | <u>Choice Element Name</u> |
|-----------------------------------|----------------------------|----------------------------|
| <u>P_LOAD_STATISTICS_FW_TYPE</u> | <u>TpFwID</u> | <u>FrameworkID</u> |
| <u>P_LOAD_STATISTICS_SVC_TYPE</u> | <u>TpServiceID</u> | <u>ServiceID</u> |
| <u>P_LOAD_STATISTICS_APP_TYPE</u> | <u>TpClientAppID</u> | <u>ClientAppID</u> |

TpLoadStatisticEntityType

Defines the type of entity (i.e. service, application or framework) supplying load statistics.

| <u>Name</u> | <u>Value</u> | <u>Description</u> |
|-----------------------------------|--------------|---|
| <u>P_LOAD_STATISTICS_FW_TYPE</u> | <u>0</u> | <u>Framework-type load statistics</u> |
| <u>P_LOAD_STATISTICS_SVC_TYPE</u> | <u>1</u> | <u>Service-type load statistics</u> |
| <u>P_LOAD_STATISTICS_APP_TYPE</u> | <u>2</u> | <u>Application-type load statistics</u> |

TpLoadStatisticInfo

Defines the Tagged Choice of Data Elements that specify the type of load statistic information (i.e. valid or invalid).

| <u>Tag Element Type</u> |
|--------------------------------|
| <u>TpLoadStatisticInfoType</u> |

| <u>Tag Element Value</u> | <u>Choice Element Type</u> | <u>Choice Element Name</u> |
|----------------------------------|-----------------------------|----------------------------|
| <u>P_LOAD_STATISTICS_VALID</u> | <u>TpLoadStatisticData</u> | <u>LoadStatisticData</u> |
| <u>P_LOAD_STATISTICS_INVALID</u> | <u>TpLoadStatisticError</u> | <u>LoadStatisticError</u> |

TpLoadStatisticInfoType

Defines the type of load statistic information (i.e. valid or invalid).

| <u>Name</u> | <u>Value</u> | <u>Description</u> |
|----------------------------------|--------------|--------------------------------|
| <u>P_LOAD_STATISTICS_VALID</u> | <u>0</u> | <u>Valid load statistics</u> |
| <u>P_LOAD_STATISTICS_INVALID</u> | <u>1</u> | <u>Invalid load statistics</u> |

TpLoadStatisticError

Defines the error code associated with a failed attempt to retrieve any load statistics information.

| <u>Name</u> | <u>Value</u> | <u>Description</u> |
|------------------------------------|--------------|------------------------------------|
| <u>P_LOAD_INFO_ERROR_UNDEFINED</u> | <u>0</u> | <u>Undefined error</u> |
| <u>P_LOAD_INFO_UNAVAILABLE</u> | <u>1</u> | <u>Load statistics unavailable</u> |

9.2.4 Integrity Management IDL

```

#include <fw.idl>

..

// The load statistic record at given
timestamp.
struct TpLoadStatistic {
    TpServiceID ServiceID;
    TpFloat LoadValue; // Expressed in percentage.
    TpLoadLevel LoadLevel;
    TpDateAndTime TimeStamp;
};

typedef sequence <TpLoadStatistic> TpLoadStatisticList;

// The error code for getting the load
status.
enum TpLoadStatusError {
    LOAD_STATUS_ERROR_UNDEFINED, // Undefined error.
    LOAD_STATUS_ERROR_UNAVAILABLE // Unable to get the load status.
};

// The error for getting the load status
at given timestamp.
struct TpLoadStatisticError {
    TpServiceID ServiceID;
    TpFloat LoadStatusError;
    TpDateAndTime TimeStamp;
};

typedef sequence <TpLoadStatisticError> TpLoadStatisticErrorList;

enum TpLoadStatisticEntityType {
    P_LOAD_STATISTICS_FW_TYPE,
    P_LOAD_STATISTICS_SVC_TYPE,
    P_LOAD_STATISTICS_APP_TYPE
};

union TpLoadStatisticEntityID switch(TpLoadStatisticEntityType)
{
    case P_LOAD_STATISTICS_FW_TYPE:
        TpFwID FrameworkID;
    case P_LOAD_STATISTICS_SVC_TYPE:
        TpServiceID ServiceID;
    case P_LOAD_STATISTICS_APP_TYPE:
        TpClientAppID ClientAppID;
};

struct TpLoadStatisticData {
    TpFloat LoadValue; // Expressed in percentage.
    TpLoadLevel LoadLevel;
};

enum TpLoadStatisticError {
    P_LOAD_INFO_ERROR_UNDEFINED,
    P_LOAD_INFO_UNAVAILABLE
};

enum TpLoadStatisticInfoType {
    P_LOAD_STATISTICS_VALID,
    P_LOAD_STATISTICS_INVALID
};

union TpLoadStatisticInfo switch(TpLoadStatisticInfoType)
{
    case P_LOAD_STATISTICS_VALID:
        TpLoadStatisticData LoadStatisticData;
    case P_LOAD_STATISTICS_INVALID:
        TpLoadStatisticError LoadStatisticError;
};

struct TpLoadStatistic {
    TpLoadStatisticEntityID LoadStatisticEntityID;
    TpDateAndTime TimeStamp;
    TpLoadStatisticInfo LoadStatisticInfo;
};

typedef sequence <TpLoadStatistic> TpLoadStatisticList;

```


7.2.2.1.2 2 Parties in Call state

A connection between two parties has been established.

In case the calling party disconnects, the gateway informs the application by invoking callEnded().

When the called party disconnects different situations apply:

1. the application is monitoring for this event in interrupt mode: a transition is made to the 1 Party in Call state, the application is informed with routeRes with indication that the called party has disconnected and all requested reports are sent to the application. The application now again has control of the call.
2. the application is monitoring for this event but not in interrupt mode. In this case a transition is made to the Network Released state and the gateway informs the application by invoking the operation routeRes() and callEnded().
3. the application is not monitoring for this event. In this case the application is informed by the gateway invoking the callEnded() operation and a transition is made to the Network Released state.

~~In this state user interaction is possible, but only when the application requested to be notified of the transition to this state in interrupt mode. After the user interaction is finished the gateway will automatically continue processing of the call.~~

~~8.3.3.31—TpCallServiceCode~~

~~Defines the service code received during a call. For example, this may be a digit sequence, user user information, recall, flash hook or ISDN Facility Information Element.~~

~~This data type is identical to a TpString. The coding of this data type is operator specific. However, the values defined in ISUP ITU Recommendation Q.763 are suggested for this data type.~~

8.2.1.3 TpEntOpID

This data type is identical to TpString and is defined as a string of characters that identifies an enterprise operator. In conjunction with the application it uniquely identifies the enterprise operator which uses a particular OSA Service Capability Feature.

8.2.1.4 TpEntOpIDList

This data type defines a Numbered Set of Data Elements of type TpEntOpID.

8.4.2.13 ~~TpUIMessageCriteria~~

~~Defines the Sequence of Data Elements that specify the additional properties for the recording of a message~~

| Structure Element Name | Structure Element Type |
|-----------------------------------|-----------------------------------|
| EndSequence | TpString |
| MaxMessageTime | TpDuration |
| MaxMessageSize | TpInt32 |

~~The structure elements specify the following criteria:~~

~~EndSequence: — Defines the character or characters which terminate an input of variable length, e.g. phonenumber.~~

~~MaxMessageTime: — specifies the maximum duration in seconds of the message that is to be recorded.~~

~~MaxMessageSize: — If this parameter is non-zero, it specifies the maximum size in bytes of the message that is to be recorded.~~

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Bristol, 5-7 Sept 2000**

Document N5-000176

e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

| | | | |
|--|--|---|-----------------------------------|
| CHANGE REQUEST | | <small>Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.</small> | |
| 29.198 CR 023 | | Current Version: 3.0.0 | |
| <small>GSM (AA.BB) or 3G (AA.BBB) specification number ↑</small> | | <small>↑ CR number as allocated by MCC support team</small> | |
| For submission to: CN#09 | for approval <input checked="" type="checkbox"/> | strategic <input type="checkbox"/> | <small>(for SMG use only)</small> |
| <small>list expected approval meeting # here ↑</small> | for information <input type="checkbox"/> | non-strategic <input type="checkbox"/> | |

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: (U)SIM ME UTRAN / Radio Core Network
(at least one should be marked with an X)

Source: N5 **Date:** 4 Sept, 2000

Subject: Alignment of Framework with Parlay 2.1, addition of setCallbackWithSessionID operation to IpService.

Work item: OSA

| | | |
|--|--|--|
| Category: <small>(only one category shall be marked with an X)</small> | F Correction <input checked="" type="checkbox"/> | Release: Phase 2 <input type="checkbox"/> |
| | A Corresponds to a correction in an earlier release <input type="checkbox"/> | Release 96 <input type="checkbox"/> |
| | B Addition of feature <input type="checkbox"/> | Release 97 <input type="checkbox"/> |
| | C Functional modification of feature <input type="checkbox"/> | Release 98 <input type="checkbox"/> |
| | D Editorial modification <input type="checkbox"/> | Release 99 <input checked="" type="checkbox"/> |
| | | Release 00 <input type="checkbox"/> |

Reason for change: In order to have the possibility to specify a reference address of the application's callback interface for interaction with a specific session : e.g. a specific call, a new operation, called setCallbackWithSessionID to IpService should be added.

Clauses affected: 6,9

| | | | |
|------------------------------|--|----------------|--|
| Other specs affected: | Other 3G core specifications <input type="checkbox"/> | → List of CRs: | |
| | Other GSM core specifications <input type="checkbox"/> | → List of CRs: | |
| | MS test specifications <input type="checkbox"/> | → List of CRs: | |
| | BSS test specifications <input type="checkbox"/> | → List of CRs: | |
| | O&M specifications <input type="checkbox"/> | → List of CRs: | |

Other comments:



<----- double-click here for help and instructions on how to create a CR.

6.1 Class diagrams common across OSA

All application and framework interfaces inherit from IpOsa interface. Network Service Capability Features on the other hand inherit from the common IpService interface. The corresponding interfaces that must be implemented by the application (e.g. for API callbacks) are denoted as 'Application Interface'.

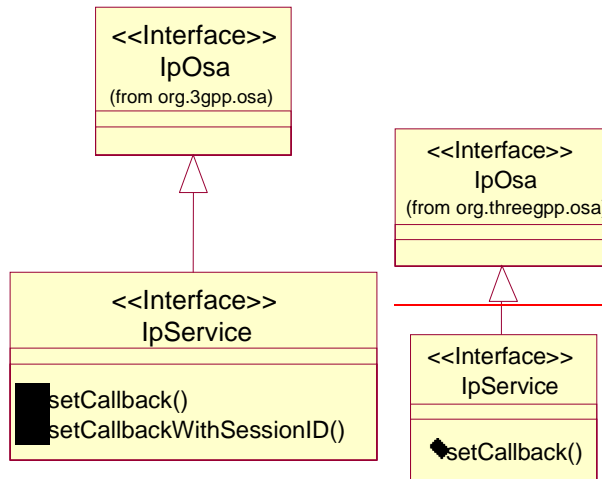
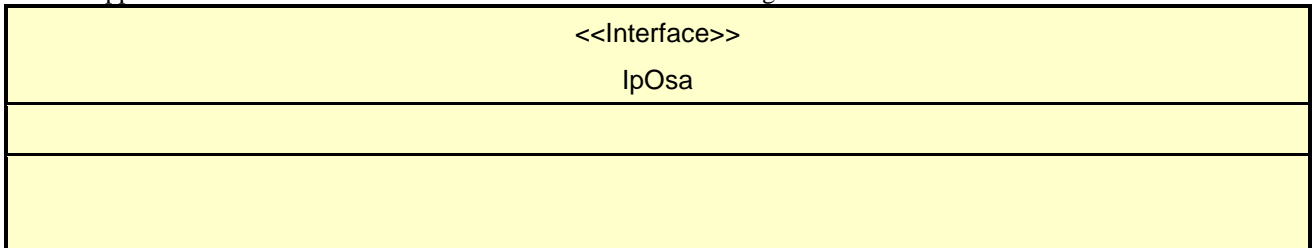


Figure 6-1: OSA base interfaces

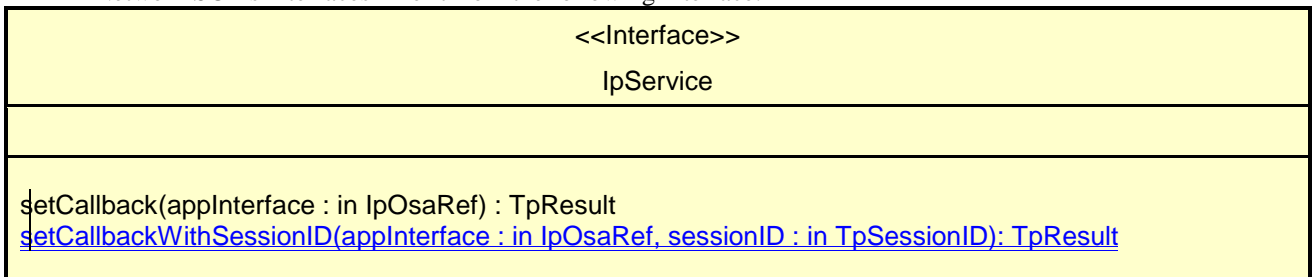
6.1.1 Base OSA interface

All application and framework interfaces inherit from the following interface.



6.1.2 Generic Service Capability Feature interface

All Network SCF's interfaces inherit from the following interface.



9 IDL Interface Definitions

The OSA API definitions have been divided into several CORBA modules. The common data definitions are placed in the root module while each of the specific service capability feature API definitions are being assigned their own module directly under that root. Each specific SCF functions, like User Status, have their data and interface definitions collocated. This structure has the advantage that explicit scoping is kept to a minimum. The IDLs defined for the specific SCFs assumes that the OSA common definitions (interfaces and data) are provided in the org.threegpp.osa module within a file name called OSA.idl

| Module Name | Description | IDL file name |
|--------------------------|---|---------------|
| org.threegpp.osa | Common data/interface definitions | OSA.idl |
| org.threegpp.osa.mm | Common mobility data definitions (root) | MM.idl |
| org.threegpp.osa.mm.ul | Network User Location (UL) | MMul.idl |
| org.threegpp.osa.mm.us | User Status (US) | MMus.idl |
| org.threegpp.osa.cc | Call Control | CC.idl |
| org.threegpp.osa.ui | User Interaction | UI.idl |
| org.threegpp.osa.termcap | Terminal Capabilities | TERMCAP.idl |

9.1 Generic IDL

```

#ifndef __OSA_DEFINED
#define __OSA_DEFINED

..

/*****
//
// base OSA interface
*****/

inherit // All application, framework and service capability features interfaces
provide any // from the following interface. This API Base Interface does not
// additional methods.
interface IpOsa
{
};

interface. // All service capability feature interfaces inherit from the following
interface IpService : IpOsa
{
// This method specifies the reference address of the callback
// that a SCF uses to invoke methods on the application.
void setCallback(in IpOsa appInterface)

interface
raises(TpGeneralException);
void setCallbackWithSessionID(in IpOsa appInterface, in
TpSessionID sessionID) raises(TpGeneralException);
};

};

#endif

```


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Document **N5-000174**
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

| | | | |
|---|--|--|--------------------|
| CHANGE REQUEST | | Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly. | |
| 29.198 CR 024 | | Current Version: 3.0.0 | |
| GSM (AA.BB) or 3G (AA.BBB) specification number ↑ | | ↑ CR number as allocated by MCC support team | |
| For submission to: CN#09 | for approval <input checked="" type="checkbox"/> | strategic <input type="checkbox"/> | (for SMG use only) |
| list expected approval meeting # here ↑ | for information <input type="checkbox"/> | non-strategic <input type="checkbox"/> | |

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

Proposed change affects: (U)SIM ME UTRAN / Radio Core Network
(at least one should be marked with an X)

Source: N5 **Date:** 27 August 2000

Subject: Clarification of life time of parameters in TpAuthDomain

Work item: OSA

| | | | |
|---|--|-----------------|--|
| Category: | F Correction <input checked="" type="checkbox"/> | Release: | Phase 2 <input type="checkbox"/> |
| (only one category shall be marked with an X) | A Corresponds to a correction in an earlier release <input type="checkbox"/> | | Release 96 <input type="checkbox"/> |
| | B Addition of feature <input type="checkbox"/> | | Release 97 <input type="checkbox"/> |
| | C Functional modification of feature <input type="checkbox"/> | | Release 98 <input type="checkbox"/> |
| | D Editorial modification <input type="checkbox"/> | | Release 99 <input checked="" type="checkbox"/> |
| | | | |

Reason for change: The TpAuthDomain data-type consists of two different data-types that have a different life-time. This CR proposes to add clarification text regarding this.

Clauses affected: 6.2, 8.2, 9.2

| | | | |
|------------------------------|--|----------------|--|
| Other specs affected: | Other 3G core specifications <input type="checkbox"/> | → List of CRs: | |
| | Other GSM core specifications <input type="checkbox"/> | → List of CRs: | |
| | MS test specifications <input type="checkbox"/> | → List of CRs: | |
| | BSS test specifications <input type="checkbox"/> | → List of CRs: | |
| | O&M specifications <input type="checkbox"/> | → List of CRs: | |

Other comments:



help.doc

<----- double-click here for help and instructions on how to create a CR.

8.2 Framework Data Definitions

..

8.2.2.4 TpAuthCapabilityList

This data type is identical to a TpString. It is a string of multiple TpAuthCapability concatenated using a comma (,) as the separation character.

TpAuthDomain

This is [Sequence of Data Elements](#) containing [all the data necessary to identify a domain](#): ~~it~~the domain identifier, and a reference to the authentication interface of the domain

| Sequence Element Name | Sequence Element Type | Description |
|-----------------------|----------------------------|---|
| DomainID | TpDomainID | Identifies the entitydomain for authentication. This data identifier is assigned to the domain during the initial contractual agreements, and is valid during the lifetime of the contract. |
| AuthInterface | IpOSARef | Identifies the authentication interface of the specific entity. This data element has the same lifetime as the domain authentication process, i.e. in principle a new interface reference can be provided each time a domain intends to access another. interact with |

