**Source:**        **SA5**

**Title:**         **Rel-4 CR32.102, 32.111-2 & 32.303 on Rule for IDL file names**

**Document for:**  **Approval**

**Agenda Item:**   **7.5.3**

| Doc-1st-Level | Doc-2nd-Level | Spec | CR | Rev | Phase | Subject | Cat | Version Current | Version -New | Workitem |
|---|---|---|---|---|---|---|---|---|---|---|
| SP-010475 | S5-010523 | 32.102 | 017 | | Rel-4 | Specify the Rule for IDL file names | F | 4.1.0 | 4.2.0 | OAM-AR |
| SP-010475 | S5-010568 | 32.111-3 | 012 | | Rel-4 | Eliminate guesses on IDL file names in Alarm IRP: CORBA SS | F | 4.0.0 | 4.1.0 | OAM-FM |
| SP-010475 | S5-010567 | 32.303 | 001 | | Rel-4 | Eliminate guesses on IDL file names in Notification IRP: CORBA SS | F | 4.0.0 | 4.1.0 | OAM-CM |

*CR-Form-v4*

# CHANGE REQUEST

⌘ **32.102** CR **017** ⌘ rev **-** ⌘ Current version: **4.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

**Proposed change affects:** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☐ Core Network **X**

| | | |
|---|---|---|
| *Title:* ⌘ | Specify the Rule for IDL file names | |
| *Source:* ⌘ | SA5 | |
| *Work item code:* ⌘ | OAM-AR | *Date:* ⌘ 07/09/2001 |

*Category:* ⌘ **F**
*Release:* ⌘ REL-4

*Use one of the following categories:*
*F (correction)*
*A (corresponds to a correction in an earlier release)*
*B (addition of feature),*
*C (functional modification of feature)*
*D (editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
REL-4 (Release 4)
REL-5 (Release 5)

| | |
|---|---|
| **Reason for change:** ⌘ | CORBA IDL uses "#include "X"" statement where X is a name of a file containing IDL statements. In the CORBA Solution Set Annex where IDL statements are defined, there is no indication on (a) which IDL statements shall belong to one file and (b) what is the name of the file. IDL programmer has to make guesses. |
| **Summary of change:** ⌘ | Add a subsection F.4 to specify the rule that eliminates the guesses by IDL programmers. |
| **Consequences if not approved:** ⌘ | IDL programmer has to make guesses (see "reason for change"). |

| | |
|---|---|
| **Clauses affected:** ⌘ | Annex F. |

**Other specs affected:** ⌘
☐ Other core specifications ⌘
☐ Test specifications
**X** O&M Specifications — 32.303, 32.111-3

| | |
|---|---|
| **Other comments:** ⌘ | "Children" CR32.111-3-012_S5-010568 and CR32.303-001_S5-010567 are provided to this "Parent" CR32.102-017_S5-010523 |

## Annex F (normative):
## Rules for CORBA Solution Sets

**…**

**…**

### F.3.5    Encoding rule of absence semantics

The absence semantics for parameter is type dependent.  For a string type, the absence semantics is a `string` of zero length.  For an `integer` type, it is the highest possible positive number.  For a boxed `valueType` (supported by CORBA 2.3), it is the null value.

## F.4    IDL file name rule

CORBA IDL uses "#include "X"" statement where X is a name of a file containing IDL statements.  In the CORBA Solution Set, IDL statements are specified.

The rule defined here specifies

> (a)  the IDL statements that shall belong to one file; and

> (b)  the name of the file.

Rule: In the Annex where IDL statements are defined, use a special marker to indicate that a set of IDL statements shall be contained in one file.  The name of the file shall be the name of the first IDL module of that set (of IDL statements).  Multiple markers can be used.

*CR-Form-v4*

# CHANGE REQUEST

| | ⌘ | **32.111-3** | **CR** | **012** | ⌘ | ev | **-** | ⌘ | Current version: | **4.0.0** | ⌘ |

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**Proposed change affects:** ⌘  (U)SIM ☐  ME/UE ☐  Radio Access Network ☐  Core Network **X**

| | | |
|---|---|---|
| *Title:* | ⌘ | Eliminate guesses on IDL file names in Alarm IRP: CORBA SS |
| *Source:* | ⌘ | SA5 |
| *Work item code:* ⌘ | OAM-FM | *Date:* ⌘  07/09/2001 |
| *Category:* ⌘ | **F** | *Release:* ⌘  REL-4 |

*Use one of the following categories:*
  **F** *(correction)*
  **A** *(corresponds to a correction in an earlier release)*
  **B** *(addition of feature),*
  **C** *(functional modification of feature)*
  **D** *(editorial modification)*
Detailed explanations of the above categories can
be found in 3GPP TR 21.900.

*Use one of the following releases:*
  2 *(GSM Phase 2)*
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  R97 *(Release 1997)*
  R98 *(Release 1998)*
  R99 *(Release 1999)*
  REL-4 *(Release 4)*
  REL-5 *(Release 5)*

| | | |
|---|---|---|
| *Reason for change:* ⌘ | | CORBA IDL uses "#include "X"" statement where X is a name of a file containing IDL statements. In Annex where IDL statements are defined, there is no indication on (a) which IDL statements shall belong to one file and (b) what is the name of the file. IDL programmer has to make guesses. |
| *Summary of change:* ⌘ | | Use special marker in Annex to partition the IDL statements into sets. Each set of IDL statements shall go into one file. The name of the file shall be the name the first IDL module of that set (of IDL statements). |
| *Consequences if not approved:* ⌘ | | IDL programmer has to make guesses (see "reason for change"). |

| | | |
|---|---|---|
| *Clauses affected:* | ⌘ | Annex where IDL statements are defined. |

| *Other specs affected:* | ⌘ | ☐ Other core specifications | ⌘ | |
|---|---|---|---|---|
| | | ☐ Test specifications | | |
| | | **X** O&M Specifications | | 32.102, 32.303 |

| | | |
|---|---|---|
| *Other comments:* | ⌘ | The present CR32.111-3-012_S5-010568 and CR32.303-001_S5-010567 are "Children" of the "Parent" CR32.102-017_S5-010523, and can be approved only if the "Parent" was approved. |

# Annex A (normative): IDL specification (file name "AlarmIRPConstDefs.idl")

```
#ifndef AlarmIRPConstDefs_idl
#define AlarmIRPConstDefs_idl

#include "CosNotification.idl"
#include "ManagedGenericIRPConstDefs.idl"
#include "CosNotification.idl"
#include "generic.idl"

#ifndef AlarmIRP_idl
#define AlarmIRP_idl

// This statement must appear after all include statements
#pragma prefix "3gppsa5.org"

/* ## Module: AlarmIRPConstDefs
This module contains commonly used definitions for Alarm IRP
==================================================================
*/
module AlarmIRPConstDefs
{
    /*
    Define the this Alarm IRPVersion.
    This string is used for the return value of
```

```
/*
   Define the structure returned when an operation fails for a set of alarm ids.
   A reason is provided in order to indicate why the operation failed.
   */
   struct BadAlarmInformationIdSeq
   {
      string alarm_information_reference;
      string reason;
   };

   typedef sequence <string> AlarmInformationIdSeq;
   typedef CosNotification::EventBatch AlarmInformationSeq;
};
```

#endif

# IDL specification (file name "AlarmIRPSystem.idl")

```
#ifndef AlarmIRPSystem_idl
#define AlarmIRPSystem_idl

#include "AlarmIRPConstDefs.idl"
#include "ManagedGenericIRPSystem.idl"

// This statement must appear after all include statements
#pragma prefix "3gppsa5.org"

/* ## Module: AlarmIRPSystem
This module contains the specification of all operations of Alarm IRP Agent.
================================================================
*/
module AlarmIRPSystem
{
    /*
    System fails to complete the operation.  System can provide reason
    to qualify the exception.  The semantics carried in reason
```

*CR-Form-v4*

# CHANGE REQUEST

| ⌘ | **32.303** | **CR** | **001** | ⌘ | ev | **-** | ⌘ | Current version: | **4.0.0** | ⌘ |

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**Proposed change affects:** ⌘  (U)SIM ☐  ME/UE ☐  Radio Access Network ☐  Core Network ☐

| | | |
|---|---|---|
| ***Title:*** ⌘ | Eliminate guesses on IDL file names in Notification IRP: CORBA SS | |
| ***Source:*** ⌘ | SA5 | |
| ***Work item code:*** ⌘ | OAM-CM | ***Date:*** ⌘  07/09/2001 |

| | |
|---|---|
| ***Category:*** ⌘  **F** | ***Release:*** ⌘  REL-4 |

*Use one of the following categories:*
  ***F*** *(correction)*
  ***A*** *(corresponds to a correction in an earlier release)*
  ***B*** *(addition of feature),*
  ***C*** *(functional modification of feature)*
  ***D*** *(editorial modification)*
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be found in 3GPP TR 21.900.

*Use one of the following releases:*
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  REL-5  *(Release 5)*

| | |
|---|---|
| ***Reason for change:*** ⌘ | CORBA IDL uses "#include "X"" statement where X is a name of a file containing IDL statements. In Annex where IDL statements are defined, there is no indication on (a) which IDL statements shall belong to one file and (b) what is the name of the file. IDL programmer has to make guesses. |
| ***Summary of change:*** ⌘ | Use special marker in the Annex (where IDL statements are specified) to partition IDL statements into sets of IDL statements. One set of IDL statement shall go into one file. The name of the file shall be the name the first IDL module of that set (of IDL statements). |
| ***Consequences if not approved:*** ⌘ | IDL programmer has to make guesses (see "reason for change"). |

| | | |
|---|---|---|
| ***Clauses affected:*** ⌘ | Annex where IDL statements are defined. | |
| ***Other specs affected:*** ⌘ | ☐ Other core specifications ⌘ <br> ☐ Test specifications <br> ☒ O&M Specifications | <br><br>32.102, 32.111-3 |
| ***Other comments:*** ⌘ | The present CR32.303-001_S5-010567 and CR32.111-3-012_S5-010568 are "Children" of the "Parent" CR32.102-017_S5-010523, and can be approved only if the "Parent" was approved. | |

# Annex A (normative): Notification IRP CORBA IDL Specification (file name "ManagedGenericIRPConstDefs.idl")

```
#ifndef ManagedGenericIRPConstDefs_idl
#define ManagedGenericIRPConstDefs_idl

#include "TimeBase.idl"

// This statement must appear after all include statements
#pragma prefix "3gppsa5.org"
#include "TimeBase.idl"

#ifndef ManagedGenericIRP_idl
#define ManagedGenericIRP_idl

// This statement must appear after all include statements
#pragma prefix "3gppsa5.org"

/* ## Module: ManagedGenericIRPConstDefs
This module contains definitions commonly used among all IRPs such as Alarm IRP.
==================================================================
*/
module ManagedGenericIRPConstDefs
{
    /*
    Definition imported from CosTime.
```

```
The parameter_list contains a list of strings.  Each string shall be
   the actual parameter name (ex. "manager_reference", "filter", etc.)
   */
   struct Method
   {
      MethodName name;
      ParameterList parameter_list;
   };

   /*
   List of all methods and their associated parameters.
   */
   typedef sequence <Method> MethodList;
};

#endif
```

# IDL Specification (file name "ManagedGenericIRPSystem.idl")

```
#ifndef ManagedGenericIRPSystem_idl
#define ManagedGenericIRPSystem_idl

// This statement must appear after all include statements
#pragma prefix "3gppsa5.org"

/* ## Module: ManagedGenericIRPSystem
This module contains definitions commonly used among all IRPs such as Alarm IRP.
==================================================================
*/
module ManagedGenericIRPSystem
{
   /*
   Exception thrown when an unsupported optional parameter
   is passed with information.
   The parameter shall be the actual unsupported parameter name.
   */
   exception ParameterNotSupported { string parameter; };

   /*
   Exception thrown when an invalid parameter value is passed.
   The parameter shall be the actual parameter name.
   */
   exception InvalidParameter { string parameter; };

   /*
   Exception thrown when an unsupported optional method is called.
   */
   exception OperationNotSupported {};
};

#endif
```

# IDL Specification (file name "NotificationIRPConstDefs.idl")

```
#ifndef NotificationIRPConstDefs_idl
#define NotificationIRPConstDefs_idl

#include "ManagedGenericIRPConstDefs.idl"

// This statement must appear after all include statements
#pragma prefix "3gppsa5.org"

#include "CosNotifyChannelAdmin.idl"
#include "generic.idl"

#ifndef NotificationIRP_idl
#define NotificationIRP_idl

// This statement must appear after all include statements
#pragma prefix "3gppsa5.org"

/* ## Module: NotificationIRPConstDefs
This module contains definitions specific for Notification IRP.
==================================================================
*/
module NotificationIRPConstDefs
{
    /*
    Define the current Notification IRP version.
```

```
   /*
      This indicates if the subscription is Active (not suspended), Suspended,
      or Invalid.
      */
      enum SubscriptionState {Active, Suspended, Invalid};
   };

#endif
```

# IDL Specification (file name "NotificationIRPSystem.idl")

```
#ifndef NotificationIRPSystem_idl
#define NotificationIRPSystem_idl

#include "CosNotifyChannelAdmin.idl"
#include "ManagedGenericIRPConstDefs.idl"
#include "ManagedGenericIRPSystem.idl"
#include "NotificationIRPConstDefs.idl"

// This statement must appear after all include statements
#pragma prefix "3gppsa5.org"

/* ## Module: NotificationIRPSystem
This module implements capabilities of Notification IRP.
==================================================================
*/
module NotificationIRPSystem
{
    /*
    System fails to complete the operation.  System can provide reason
    to qualify the exception.  The semantics carried in reason
```