

Source: SA5 (Telecom Management)
Title: 2 Rel-5/6 CR 32.673 Correction of the alarmStatus mapping ñ Align with 32.672 CM; State Management IRP Information Service
Document for: Approval
Agenda Item: 7.5.3

Doc-1 st -Level	Doc-2 nd -Level	Spec	CR	Rev	Phase	Subject	Cat	Ver-Cur	Wi
SP-040588	S5-048571	32.673	002	--	Rel-5	Correction of the alarmStatus mapping ñ Align with 32.672 CM; State Management IRP Information Service	F	5.1.0	OAM-NIM
SP-040588	S5-048572	32.673	003	--	Rel-6	Correction of the alarmStatus mapping ñ Align with 32.672 CM; State Management IRP Information Service	A	6.0.0	OAM-NIM

3GPP TSG-SA5 (Telecom Management) Meeting #38bis, Sophia Antipolis, FRANCE, 28 June ñ 02 July 2004

S5-048571

CR-Form-v7

CHANGE REQUEST

32.673 CR 002 rev - Current version: 5.1.0

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

Proposed change affects: UICC apps ME Radio Access Network X Core Network X

Title: Correction of the alarmStatus mapping ñ Align with 32.672 CM; State Management IRP Information Service
Source: SA5 (olaf.pollakowski@siemens.com)
Work item code: OAM-NIM Date: 02/07/2004
Category: F Release: Rel-5
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), Rel-6 (Release 6)

Reason for change: In TS 32.672 the legal values of alarmStatus are {"Cleared", "Indeterminate", "Warning", "Minor", "Major", "Critical"}, according to ITU-T M.3100. However, in the CORBA SS legal values are {UnderRepair, Critical, Major, Minor, AlarmOutstanding }, according to ITU-T X.721.
Summary of change: The mapping of the legal values for alarmStatus are corrected.
Consequences if not approved: The CORBA SS would not be aligned with the IS.

Clauses affected: 2, 5.2, Annex A
Other specs affected: Table with Y/N columns for Other core specifications, Test specifications, O&M Specifications.
Other comments:

Change in Clause 2

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.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TS 32.311: "Telecommunication management; Generic Integration Reference Point (IRP) management; Requirements".

[2] 3GPP TS 32.672: "Telecommunication management; Configuration Management (CM); State Management Integration Reference Point (IRP): Information service".

[3] ITU-T Recommendation X.721: "Information technology - Open Systems Interconnection - Structure of management information: Definition of management information".

[4] [ITU-T Recommendation M.3100: "Generic network information model"](#).

End of Change in Clause 2

Change in Clause 5.2

5.2 Mapping of Attributes

Table 2 provides the mapping of the IOC attributes defined in the IS of the State Management IRP [2] to their equivalents in this CORBA Solution Set. As [2] specified the Support Qualifier for these attributes as not applicable, mappings towards Mandatory and Optional are provided.

Table 2: Mapping of Attributes

Attributes defined in State Management IRP IS [2]	CORBA SS Method attributes	Qualifier
operationalState	OperationalState (ITU-T Recommendation X.721 [3])	M
operationalState	OperationalStateTypeOpt (ITU-T Recommendation X.721 [3])	O
usageState	UsageState (ITU-T Recommendation X.721 [3])	M
usageState	UsageStateTypeOpt (ITU-T Recommendation X.721 [3])	O
administrativeState	AdministrativeState (ITU-T Recommendation X.721 [3])	M
administrativeState	AdministrativeStateTypeOpt (ITU-T Recommendation X.721 [3])	O
alarmStatus	AlarmStatus (ITU-T Recommendation M.3100 [4] X.721 [3])	M
alarmStatus	AlarmStatusTypeOpt (ITU-T Recommendation M.3100 [4] X.721 [3])	O
proceduralStatus	ProceduralStatus (ITU-T Recommendation X.721 [3])	M
proceduralStatus	ProceduralStatusTypeOpt (ITU-T Recommendation X.721 [3])	O
availabilityStatus	AvailabilityStatus (ITU-T Recommendation X.721 [3])	M
availabilityStatus	AvailabilityStatusTypeOpt (ITU-T Recommendation X.721 [3])	O
controlStatus	ControlStatus (ITU-T Recommendation X.721 [3])	M
controlStatus	ControlStatusTypeOpt (ITU-T Recommendation X.721 [3])	O
standbyStatus	StandbyStatus (ITU-T Recommendation X.721 [3])	M
standbyStatus	StandbyStatusTypeOpt (ITU-T Recommendation X.721 [3])	O
unknownStatus	UnknownStatus (ITU-T Recommendation X.721 [3])	M
unknownStatus	UnknownStatusTypeOpt (ITU-T Recommendation X.721 [3])	O

End of Change in Clause 5.2

Change in Annex A

Annex A (normative): IDL specifications

A.1 IDL specification (file name "StateManagementIRPConstDefs.idl")

```

#ifndef StateManagementIRPConstDefs_idl
#define StateManagementIRPConstDefs_idl

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

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

/* ## Module: StateManagementIRPConstDefs
This module contains commonly used definitions for State Management IRP
=====
*/
module StateManagementIRPConstDefs
{
    /*
    Definition of Operational State based on X.721 [3], if mandatory.
    */
    enum OperationalState
    {
        Disabled, Enabled
    };
    /*

```

```

Definition of Usage State based on X.721 [3], if mandatory.
*/
enum UsageState
{
    Idle, Active, Busy
};

/*
Definition of Administrative State based on X.721 [3], if mandatory.
*/
enum AdministrativeState
{
    Locked, Unlocked, ShuttingDown
};

/*
Definition of Alarm Status based on M.3100 \[4\]X.721 [3], if mandatory.
*/
enum AlarmStatusValues
{
    CLEARED, INDETERMINATE, WARNING, MINOR, MAJOR, CriticalUnderRepair, Critical, Major, Minor,
    AlarmOutstanding
};
typedef sequence <AlarmStatusValues,5> AlarmStatus;

/*
Definition of Procedural Status based on X.721 [3], if mandatory.
*/
enum ProceduralStatusValues
{
    InitializationRequired, NotInitialized, Initializing, Reporting,
    Terminating
};
typedef sequence <ProceduralStatusValues,5> ProceduralStatus;

/*
Definition of Availability Status based on X.721 [3], if mandatory.
*/
enum AvailabilityStatusValues
{
    InTest, Failed, PowerOff, OffLine, OffDuty, Dependency, Degraded,
    NotInstalled, LogFull
};
typedef sequence <AvailabilityStatusValues,9> AvailabilityStatus;

/*
Definition of Control Status based on X.721 [3], if mandatory.
*/
enum ControlStatusValues
{
    SubjectToTest, PartOfServicesLocked, ReservedForTest, Suspended
};
typedef sequence <ControlStatusValues,4> ControlStatus;

/*
Definition of Standby Status based on X.721 [3], if mandatory.
*/
enum StandbyStatus
{
    HotStandby, ColdStandby, ProvidingService
};

/*
Definition of Unknown Status based on X.721 [3], if mandatory
(if switch is TRUE then value equal to TRUE implies "unknown status").
*/
union UnknownStatus switch(boolean)
{
    case TRUE: boolean value;
};
};
#endif

```

A.2 IDL specification (file name "StateManagementIRPOptConstDefs.idl")

```

#ifndef StateManagementIRPOptConstDefs_idl
#define StateManagementIRPOptConstDefs_idl

#include "CosNotification.idl"
#include "ManagedGenericIRPConstDefs.idl"
#include "StateManagementIRPConstDefs.idl"

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

/* ## Module: StateManagementIRPOptConstDefs
This module contains commonly used optional definitions for State Management IRP
=====
*/
module StateManagementIRPOptConstDefs
{

    /*
    Definition of Operational State based on X.721 [3], if optional.
    */
    union OperationalStateTypeOpt switch(boolean)
    {
        case TRUE: StateManagementIRPConstDefs::OperationalState operational_state;
    };

    /*
    Definition of Usage State based on X.721 [3], if optional.
    */
    union UsageStateTypeOpt switch(boolean)
    {
        case TRUE: StateManagementIRPConstDefs::UsageState usage_state;
    };

    /*
    Definition of Administrative State based on X.721 [3], if optional.
    */
    union AdministrativeStateTypeOpt switch(boolean)
    {
        case TRUE: StateManagementIRPConstDefs::AdministrativeState administrative_state;
    };

    /*
    Definition of Alarm Status based on M.3100 \[4\]X.721 [3], if optional.
    */
    union AlarmStatusTypeOpt switch(boolean)
    {
        case TRUE: StateManagementIRPConstDefs::AlarmStatus alarm_status;
    };

    /*
    Definition of Procedural Status based on X.721 [3], if optional.
    */
    union ProceduralStatusTypeOpt switch(boolean)
    {
        case TRUE: StateManagementIRPConstDefs::ProceduralStatus procedural_status;
    };

    /*
    Definition of Availability Status based on X.721 [3], if optional.
    */
    union AvailabilityStatusTypeOpt switch(boolean)
    {
        case TRUE: StateManagementIRPConstDefs::AvailabilityStatus availability_status;
    };

    /*
    Definition of Control Status based on X.721 [3], if optional.
    */
    union ControlStatusTypeOpt switch(boolean)
    {

```

```

    case TRUE: StateManagementIRPConstDefs::ControlStatus control_status;
};

/*
Definition of Standby Status based on X.721 [3], if optional.
*/
union StandbyStatusTypeOpt switch(boolean)
{
    case TRUE: StateManagementIRPConstDefs::StandbyStatus standby_status;
};

/*
Definition of Unknown Status based on X.721 [3], if optional.
*/
union UnknownStatusTypeOpt switch(boolean)
{
    case TRUE: StateManagementIRPConstDefs::UnknownStatus unknown_status;
};
};
#endif

```

End of Change in Annex A

Annex B (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Sep 2002	S_17	SP-020470	--	--	Submitted to TSG SA #17 for Approval	1.0.0	5.0.0
Mar 2003	S_19	SP-030143	001	--	CORBA IDL Compiler Errors, Invalid CORBA IDL Include Reference	5.0.0	5.1.0

3GPP TSG-SA5 (Telecom Management)
Meeting #38bis, Sophia Antipolis, FRANCE, 28 June ñ 02 July 2004

S5-048572

CR-Form-v7

CHANGE REQUEST

⌘ **32.673 CR 003** ⌘ rev - ⌘ Current version: **6.0.0** ⌘

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

Proposed change affects: | UICC apps ME Radio Access Network Core Network

Title:	⌘ Correction of the alarmStatus mapping ñ Align with 32.672 CM; State Management IRP Information Service		
Source:	⌘ SA5 (olaf.pollakowski@siemens.com)		
Work item code:	⌘ OAM-NIM	Date:	⌘ 02/07/2004
Category:	⌘ A	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2	(GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R96	(Release 1996)
	B (addition of feature),	R97	(Release 1997)
	C (functional modification of feature)	R98	(Release 1998)
	D (editorial modification)	R99	(Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change: ⌘ In TS 32.672 the legal values of alarmStatus are {"Cleared", "Indeterminate", "Warning", "Minor", "Major", "Critical"}, according to ITU-T M.3100. However, in the CORBA SS legal values are {UnderRepair, Critical, Major, Minor, AlarmOutstanding }, according to ITU-T X.721.

Summary of change: ⌘ The mapping of the legal values for alarmStatus are corrected.

Consequences if not approved: ⌘ The CORBA SS would not be aligned with the IS.

Clauses affected: ⌘ 2, 5.2, Annex A

Other specs affected:	⌘	Y	N	Other core specifications	⌘	
		X				Test specifications
		X				O&M Specifications

Other comments: ⌘

Change in Clause 2

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.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TS 32.311: "Telecommunication management; Generic Integration Reference Point (IRP) management; Requirements".
- [2] 3GPP TS 32.672: "Telecommunication management; Configuration Management (CM); State Management Integration Reference Point (IRP): Information Service (IS)".
- [3] ITU-T Recommendation X.721: "Information technology - Open Systems Interconnection - Structure of management information: Definition of management information".
- [4] [ITU-T Recommendation M.3100: "Generic network information model"](#).

End of Change in Clause 2

Change in Clause 5.2

5.2 Mapping of Attributes

Table 2 provides the mapping of the IOC attributes defined in the IS of the State Management IRP [2] to their equivalents in this CORBA Solution Set. As [2] specified the Support Qualifier for these attributes as not applicable, mappings towards Mandatory and Optional are provided.

Table 2: Mapping of Attributes

Attributes defined in State Management IRP IS [2]	CORBA SS Method attributes	Qualifier
operationalState	OperationalState (ITU-T Recommendation X.721 [3])	M
operationalState	OperationalStateTypeOpt (ITU-T Recommendation X.721 [3])	O
usageState	UsageState (ITU-T Recommendation X.721 [3])	M
usageState	UsageStateTypeOpt (ITU-T Recommendation X.721 [3])	O
administrativeState	AdministrativeState (ITU-T Recommendation X.721 [3])	M
administrativeState	AdministrativeStateTypeOpt (ITU-T Recommendation X.721 [3])	O
alarmStatus	AlarmStatus (ITU-T Recommendation M.3100 [4] X.721 [3])	M
alarmStatus	AlarmStatusTypeOpt (ITU-T Recommendation M.3100 [4] X.721 [3])	O
proceduralStatus	ProceduralStatus (ITU-T Recommendation X.721 [3])	M
proceduralStatus	ProceduralStatusTypeOpt (ITU-T Recommendation X.721 [3])	O
availabilityStatus	AvailabilityStatus (ITU-T Recommendation X.721 [3])	M
availabilityStatus	AvailabilityStatusTypeOpt (ITU-T Recommendation X.721 [3])	O
controlStatus	ControlStatus (ITU-T Recommendation X.721 [3])	M
controlStatus	ControlStatusTypeOpt (ITU-T Recommendation X.721 [3])	O
standbyStatus	StandbyStatus (ITU-T Recommendation X.721 [3])	M
standbyStatus	StandbyStatusTypeOpt (ITU-T Recommendation X.721 [3])	O
unknownStatus	UnknownStatus (ITU-T Recommendation X.721 [3])	M
unknownStatus	UnknownStatusTypeOpt (ITU-T Recommendation X.721 [3])	O

End of Change in Clause 5.2

Change in Annex A

Annex A (normative): IDL specifications

A.1 IDL specification (file name "StateManagementIRPConstDefs.idl")

```

#ifndef StateManagementIRPConstDefs_idl
#define StateManagementIRPConstDefs_idl

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

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

/* ## Module: StateManagementIRPConstDefs
This module contains commonly used definitions for State Management IRP
=====
*/
module StateManagementIRPConstDefs
{
    /*
    Definition of Operational State based on X.721 [3], if mandatory.
    */
    enum OperationalState
    {
        Disabled, Enabled
    };
    /*

```

```

Definition of Usage State based on X.721 [3], if mandatory.
*/
enum UsageState
{
    Idle, Active, Busy
};

/*
Definition of Administrative State based on X.721 [3], if mandatory.
*/
enum AdministrativeState
{
    Locked, Unlocked, ShuttingDown
};

/*
Definition of Alarm Status based on M.3100 \[4\]X.721 [3], if mandatory.
*/
enum AlarmStatusValues
{
    CLEARED, INDETERMINATE, WARNING, MINOR, MAJOR, CRITICALUnderRepair, Critical, Major, Minor,
    AlarmOutstanding
};
typedef sequence <AlarmStatusValues,5> AlarmStatus;

/*
Definition of Procedural Status based on X.721 [3], if mandatory.
*/
enum ProceduralStatusValues
{
    InitializationRequired, NotInitialized, Initializing, Reporting,
    Terminating
};
typedef sequence <ProceduralStatusValues,5> ProceduralStatus;

/*
Definition of Availability Status based on X.721 [3], if mandatory.
*/
enum AvailabilityStatusValues
{
    InTest, Failed, PowerOff, OffLine, OffDuty, Dependency, Degraded,
    NotInstalled, LogFull
};
typedef sequence <AvailabilityStatusValues,9> AvailabilityStatus;

/*
Definition of Control Status based on X.721 [3], if mandatory.
*/
enum ControlStatusValues
{
    SubjectToTest, PartOfServicesLocked, ReservedForTest, Suspended
};
typedef sequence <ControlStatusValues,4> ControlStatus;

/*
Definition of Standby Status based on X.721 [3], if mandatory.
*/
enum StandbyStatus
{
    HotStandby, ColdStandby, ProvidingService
};

/*
Definition of Unknown Status based on X.721 [3], if mandatory
(if switch is TRUE then value equal to TRUE implies "unknown status").
*/
union UnknownStatus switch(boolean)
{
    case TRUE: boolean value;
};
};
#endif

```

A.2 IDL specification (file name "StateManagementIRPOptConstDefs.idl")

```

#ifndef StateManagementIRPOptConstDefs_idl
#define StateManagementIRPOptConstDefs_idl

#include "CosNotification.idl"
#include "ManagedGenericIRPConstDefs.idl"
#include "StateManagementIRPConstDefs.idl"

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

/* ## Module: StateManagementIRPOptConstDefs
This module contains commonly used optional definitions for State Management IRP
=====
*/
module StateManagementIRPOptConstDefs
{
    /*
    Definition of Operational State based on X.721 [3], if optional.
    */
    union OperationalStateTypeOpt switch(boolean)
    {
        case TRUE: StateManagementIRPConstDefs::OperationalState operational_state;
    };

    /*
    Definition of Usage State based on X.721 [3], if optional.
    */
    union UsageStateTypeOpt switch(boolean)
    {
        case TRUE: StateManagementIRPConstDefs::UsageState usage_state;
    };

    /*
    Definition of Administrative State based on X.721 [3], if optional.
    */
    union AdministrativeStateTypeOpt switch(boolean)
    {
        case TRUE: StateManagementIRPConstDefs::AdministrativeState administrative_state;
    };

    /*
    Definition of Alarm Status based on M.3100 \[4\]X.721 [3], if optional.
    */
    union AlarmStatusTypeOpt switch(boolean)
    {
        case TRUE: StateManagementIRPConstDefs::AlarmStatus alarm_status;
    };

    /*
    Definition of Procedural Status based on X.721 [3], if optional.
    */
    union ProceduralStatusTypeOpt switch(boolean)
    {
        case TRUE: StateManagementIRPConstDefs::ProceduralStatus procedural_status;
    };

    /*
    Definition of Availability Status based on X.721 [3], if optional.
    */
    union AvailabilityStatusTypeOpt switch(boolean)
    {
        case TRUE: StateManagementIRPConstDefs::AvailabilityStatus availability_status;
    };

    /*
    Definition of Control Status based on X.721 [3], if optional.
    */
    union ControlStatusTypeOpt switch(boolean)
    {

```

```

    case TRUE: StateManagementIRPConstDefs::ControlStatus control_status;
};

/*
Definition of Standby Status based on X.721 [3], if optional.
*/
union StandbyStatusTypeOpt switch(boolean)
{
    case TRUE: StateManagementIRPConstDefs::StandbyStatus standby_status;
};

/*
Definition of Unknown Status based on X.721 [3], if optional.
*/
union UnknownStatusTypeOpt switch(boolean)
{
    case TRUE: StateManagementIRPConstDefs::UnknownStatus unknown_status;
};
};
#endif

```

Annex B (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
Sep 2002	S_17	SP-020470	--	--	Submitted to TSG SA #17 for Approval	1.0.0	5.0.0
Mar 2003	S_19	SP-030143	001	--	CORBA IDL Compiler Errors, Invalid CORBA IDL Include Reference	5.0.0	5.1.0
Mar 2004	S_23	SP-040105	--	--	Automatic upgrade to Rel-6 (no CR)	5.1.0	6.0.0