Coding of X.733 Alarm information

X.733 Probable Cause into Native Probable Cause

The Native Probable Cause parameter of this model is used to reproduce the appearance of the alarm in the EMS. In cases where the EMS uses X.733 alarm information, the X.733 probable cause is inserted into the Native Probable Cause parameter as a human readable string (the same that appears on the EMS user interface).

X.733 Threshold Info Parameter into TCA Parameters

For a threshold crossing, the X.733 Threshold Info Parameter provides:

- The Identity of the particular threshold that was crossed;
- The Observed Value:
- The Threshold level (for multilevel thresholds Optional)
- The Arm Time (may be null Optional)

These can be mapped to the parameters of a TCAlert notification as follows:

- The Identity of the threshold is mapped to PMParameterName member of PMParameterValue member of TCATypeValues parameter.
- The Observed Value of the threshold is mapped to the Value member of PMParameterValue member of TCATypeValues parameter.
- The (optional) Threshold Level is mapped to ThresholdWaterMark member of of TCATypeValues parameter.
- The (optional) Arm Time parameter is not mapped.

Other Parameters into Additional Information Parameter

The encoding described in this section, using the additionalInfo parameter of NT_ALARM notifications is **obsolete**. The new "X.733::*" fields should be used instead.

ITU-T X.733 Parameter	Name string	Value String
Event Type	"X.721::EventType"	One of the following: "communicationsAlarm", "environmentalAlarm", "equipmentAlarm", "processingErrorAlarm", "qualityofServiceAlarm"
Specific Problems	"X.721::SpecificProblems"	Specific Problems syntax is defined in X.721 as a set of identifiers. When there are several elements in the set, the sub-strings shall be separated by a "slash" character "/".
Backed-up status	"X.721::BackedUpStatus"	One of the following: • "BACKED_UP", • "NOT_BACKED_UP"
Back-up object	"X.721::BackUpObject "	A string containing the native EMS name in user-friendly form.
Trend indication	"X.721::TrendIndication "	One of the following: • "MORE_SEVERE", • "NO_CHANGE", • "LESS_SEVERE"
Correlated Notifications	"X.721::CorrelatedNotifications "	Series of substrings, each encoding a notificationId value, separated by a slash "/" character.

State Change definition (Each individual state change is coded by a separate name-value pair.)	Series of 3 substrings: "X.721::StateChange", "." (separator), a string identifying the name of the state attribute.	String encoding the new value of the state attribute.
Monitored Attributes (Each attribute is coded by a separate name- value pair.)	Series of 3 substrings: "X.721::MonitoredAttributes", "." (separator), a string identifying the attribute.	String encoding the attribute value.
Proposed repair actions	"X.721::ProposedRepairActions"	Human-readable string.
Additional Information	(free format)	(free format)

Revision History

Version	Date	Description of Change
3.0	November 2006	Conversion of encoding X733 into new template.

Acknowledgements

<firstname></firstname>	<lastname></lastname>	<company></company>

How to comment on the document

Comments and requests for information must be in written form and addressed to the contact identified below:

Keith	Dorking	Ciena
Phone:	+1 678 867 5007	
Fax:	+1 678 867 5010	
e-mail:	kdorking@ciena.com	

Please be specific, since your comments will be dealt with by the team evaluating numerous inputs and trying to

produce a single text. Thus we appreciate significant specific input. We are looking for more input than wordsmith" items, however editing and structural help are greatly appreciated where better clarity is the result.