

PGP Parameters

Name	Value	applicable to PG Types ¹	Description
SwitchMode	"SingleEnded", "DualEnded", "G841_NonStandard", "Unknown"	1+1 trail protection, 2-F MSSPRING, 4-F MSSPRING, 1:N trail protection	
SPRINGProtocol	"Standard", "TransOceanic"	2-F MSSPRING, 4-F MSSPRING	
SPRINGNodeId	"0" to "15" (may be any other string that matches the SPRINGNodeId transmission parameter values) or "Unknown"	2-F MSSPRING, 4-F MSSPRING	The SPRINGNodeId is used to identify the managedElement during creation of SNCs. This is needed for BLSRs to identify the ingress and the egress nodes so that they know where to loop around in case of failure.
SwitchPosition	"IDLE", "PASS_THROUGH", "SWITCH"	2-F MSSPRING, 4-F MSSPRING	This indicates whether the RING switch has occurred because of fault detection on this group or in a different group around the ring.
nonPre-EmptibleTraffic	"ALLOWED", "NOT_ALLOWED"	1:N trail protection, 2-F MSSPRING	This indicates whether the non-pre-emptible traffic is allowed within this group.
wtrTime	Values are in seconds or "-1" indicates an unknown value or that the parameter is not applicable.	For revertive switches. 1+1 trail protection, 1:N trail protection, 2-F MSSPRING, 4-F MSSPRING	This is the time required to wait before the revertive switch can go back to the primary TP.

¹ It should be noted that although the term MSP was chosen as the original specific protection scheme to which the related behaviour applied was Multiplex Section Protection, the label is now more generally applied to any 1+1 or 1:N Trail protection scheme.

PG type "1+1 trail protection" refers to ProtectionGroupType "MSP_1_PLUS_1",

PG type "1:N trail protection" refers to ProtectionGroupType "MSP_1_FOR_N",

PG type "2-F MSSPRING" refers to ProtectionGroupType "2_FIBER_BLSR",

PG type "4-F MSSPRING" refers to ProtectionGroupType "4_FIBER_BLSR".

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Name	Value	applicable to PG Types ¹	Description
HoldOffTime	Values are in milliseconds or "Unknown", "Infinite"	All protection groups that support revertive switch. 1+1 trail protection, 1:N trail protection, 2-F MSSPRING, 4-F MSSPRING	This is the time duration for which the alarm condition must persist before the switch takes place.
LODNumSwitches	Number of switches.	For non-revertive switches. 1+1 trail protection, 1:N trail protection, 2-F MSSPRING, 4-F MSSPRING	LODNumSwitches and LODDuration are used together to specify when Lock Out should occur. If the specified number of switches occur within the specified duration, the result is Lock Out for that group.
LODDuration	Values are in seconds.	For non-revertive switches. 1+1 trail protection, 1:N trail protection, 2-F MSSPRING, 4-F MSSPRING	
TandemSwitching	Empty string or "PGPName"	1+1 trail protection	This attribute specifies whether the switching capability of the protection group is independent of the switching of any other group (empty string) or if its operation is associated with, related to or synchronised to the operation of another identified group (PGPName)
BundleSwitching	Empty string or "PGPName"	1+1 trail protection	This attribute specifies whether the switching capability of the protection group is autonomous (empty string) or, if it must work accordingly with another one, the name of the associated PGP. PGPName: is the PGPName[2].value of the associated PG.

Name	Value	applicable to PG Types ¹	Description
Hitless	"Yes", "No"	1+1 trail protection, 1:N trail protection	This attribute specifies whether the hitless switching capability (i.e. a switch event between a working and a protection channel which does not add any errors to those already produced by the propagation medium during the switching procedure) is present or not. A value of "Yes" indicates that the hitless capability is present in the protection system. A value of "No" indicates that the hitless capability is not present and will as a consequence introduce errors on a switch operation.. See G.774.08.
ExerciseOn	"True", "False"	1+1 trail protection, 1:N trail protection	This attribute is used to indicate if an exercise procedure is in progress. Exercise is an optional request which may be used to test the RPS function by initiating an RPS process without actual switching. If the value is "True" the procedure is activated, otherwise it is deactivated. When the exerciseOn attribute is "True", possible malfunctioning of the exercise procedure shall be signaled setting the 'degraded' component in the AvailabilityStatus attribute. See G.774.08.
Availability Status	"Failed", "InTest", "Degraded" "OK"	1+1 trail protection, 1:N trail protection	This attribute is used to indicate the availability of a protection group, summarizing both operatively and usage (see X.731). Used values are: <ul style="list-style-type: none"> • In Test: The switching function is undergoing a test procedure. • Failed: The switching function has an internal fault that prevents it from operating. • Degraded: The service available from the switching function is degraded with respect to its operating capacity.
SwitchCriteriaEnable	"INDETERMINATE", "CRITICAL", "MAJOR", "MINOR", "WARNING", "CLEARED"	1:N trail protection	This attribute restricts the severity of alarms for which switching criteria is enabled. See Enums::PerceivedSeverity in IA.

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Name	Value	applicable to PG Types ¹	Description
PrivilegedChannel	Empty string or "PTPName"	1:N trail protection	<p>For a 1:N architecture, when no pre-emptible traffic is equipped, this attribute is used to indicate if the protected TP defined in the value of the attribute is permanently bridged in the TX side (in absence of any switching requests) to the protecting TP. An empty string value indicates that there is no bridge active.</p> <p>Note: For a 1+1 architecture, when no occasional traffic facility is foreseen, communication between the two corresponding RPS functions is not required, being the working tributary permanently bridged to both working and protection lines.</p> <p>"PTPName" is the TPName[2].value of the corresponding privileged PTP.</p> <p>See G.774.08.</p>

Parameters added for Version 3.0 are in blue.

1 Administrative Appendix

1.1 Document History

Version	Date	Description of Change
3.0	April 2005	

1.2 Acknowledgments

First Name	Last Name	Company

1.3 How to comment on this document

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

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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.