TR-064 Support – WAN PPP Connection

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History

Datum	Version	Description
2015-11-20	9	Parameter changed from NewDescription to NewPortMappingDescription Add parameter DownstreamMaxBitRate Service State Table
2017-01-09	10	Mark X_SetDNSServer as unsupported
2017-05-10	11	Added PortMapping restrictions to the description in chapter 1.18 AddPortMapping , page 6.
2019-04-09	12	Service description details added.
2021-09-08	13	Added Allowed Values description for PortMappingDescription
2025-08-07	14	Changed AVM to FRITZ!
2025-08-12	15	Added allowed values for PossibleConnectionTypes and ConnectionType
2025-12-18	16	Added new state variables X_AVM-DE_IPv6ConnectionStatus and X_AVM-DE_IPv6Uptime for GetInfo

urn:WANPPPConnection-com:serviceId:WANPPPConnection1

This service supports only PPP based WAN connections. E.g. the FRITZ!Box products with a DSL interface have typically such a connection type. If your WAN interface uses an IP connection, please have a look at the WANIPConnection1 service description. To make sure which kind of connection type is used, you can make a TR-064 request to Layer3Forwarding:GetDefaultConnectionService which provides this information.

For details please refer the TR-064 document at https://www.broadband-forum.org/technical/download/TR-064.pdf.

1 Action List

This chapter contains the supported actions of the service WAN PPP Connection which are listed incl. arguments.

1.1 GetInfo

Argument name	Direction	Related state variable	Remarks
NewEnable	out	Enable	
NewConnectionStatus	out	ConnectionStatus	
NewPossibleConnectionTypes	out	PossibleConnectionTypes	
NewConnectionType	out	ConnectionType	
NewName	out	Name	
NewUptime	out	Uptime	
NewUpstreamMaxBitRate	out	UpstreamMaxBitRate	
NewDownstreamMaxBitRate	out	DownstreamMaxBitRate	
NewLastConnectionError	out	LastConnectionError	
NewIdleDisconnectTime	out	IdleDisconnectTime	
NewRSIPAvailable	out	RSIPAvailable	
NewUserName	out	UserName	
NewNATEnabled	out	NATEnabled	
NewExternalIPAddress	out	ExternalIPAddress	
NewDNSServers	out	DNSServers	
NewMACAddress	out	MACAddress	
NewLastAuthErrorInfo	out	LastAuthErrorInfo	
NewConnectionTrigger	out	ConnectionTrigger	
NewMaxCharsUsername	out	MaxCharsUsername	
NewMinCharsUsername	out	MinCharsUsername	
NewAllowedCharsUsername	out	AllowedCharsUsername	
NewMaxCharsPassword	out	MaxCharsPassword	
NewMinCharsPassword	out	MinCharsPassword	
NewAllowedCharsPassword	out	AllowedCharsPassword	
NewTransportType	out	TransportType	
NewRouteProtocolRx	out	RouteProtocolRx	
NewPPPoEServiceName	out	PPPoEServiceName	Not supported, returns “”
NewRemoteIPAddress	out	RemoteIPAddress	Not supported, returns “”
NewPPPoEACName	out	PPPoEACName	
NewDNSEnabled	out	DNSEnabled	
NewDNSOverrideAllowed	out	DNSOverrideAllowed	
NewX_AVM-DE_IPv6ConnectionStatus	out	X_AVM-DE_IPv6ConnectionStatus	
NewX_AVM-DE_IPv6Uptime	out	X_AVM-DE_IPv6Uptime	

Table 1.1: Argument list of action GetInfo

1.2 GetConnectionTypeInfo

Argument name	Direction	Related state variable
NewConnectionType	out	ConnectionType
NewPossibleConnectionTypes	out	PossibleConnectionTypes

Table 1.2: Argument list of action GetConnectionTypeInfo

1.3 SetConnectionType

Argument name	Direction	Related state variable	Remarks
NewConnectionType	in	ConnectionType	

Table 1.3: Argument list of action SetConnectionType

1.4 GetStatusInfo

Argument name	Direction	Related state variable	Remarks
NewConnectionStatus	out	ConnectionStatus	
NewLastConnectionError	out	LastConnectionError	
NewUptime	out	Uptime	

Table 1.4: Argument list of action GetStatusInfo

1.5 GetLinkLayerMaxBitRates

Argument name	Direction	Related state variable	Remarks
NewUpstreamMaxBitRate	out	UpstreamMaxBitRate	
NewDownstreamMaxBitRate	out	DownstreamMaxBitRate	

Table 1.5: Argument list of action GetLinkLayerMaxBitRates

1.6 GetUserName

Argument name	Direction	Related state variable	Remarks
NewUserName	out	UserName	

Table 1.6: Argument list of action GetUserName

1.7 SetUserName

Argument name	Direction	Related state variable	Remarks
NewUserName	in	UserName	

Table 1.7: Argument list of action SetUserName

1.8 SetPassword

Argument name	Direction	Related state variable	Remarks
NewPassword	out	Password	

Table 1.8: Argument list of action SetPassword

1.9 GetNATRSIPStatus

Argument name	Direction	Related state variable	Remarks
NewRSIPAvailable	out	RSIPAvailable	
NewNATEnabled	out	NATEnabled	

Table 1.9: Argument list of action GetNATRSIPStatus

1.10 SetConnectionTrigger

Argument name	Direction	Related state variable	Remarks
NewConnectionTrigger	in	ConnectionTrigger	

Table 1.10: Argument list of action SetConnectionTrigger

1.11 ForceTermination

No arguments.

1.12 RequestConnection

No arguments.

1.13 X_GetDNSServers

Argument name	Direction	Related state variable	Remarks
NewDNSServers	out	DNSServers	

Table 1.11: Argument list of action X_ GetDNSServers

1.14 X_SetDNSServers

The action is not supported.

1.15 GetPortMappingNumberOfEntries

Argument name	Direction	Related state variable	Remarks
NewPortMappingNumberOfEntries	out	PortMappingNumberOfEntries	

Table 1.12: Argument list of action GetPortMappingNumberOfEntries

1.16 GetGenericPortMappingEntry

Argument name	Direction	Related state variable	Remarks
NewPortMappingIndex	in	PortMappingNumberOfEntries	
NewRemoteHost	out	RemoteHost	
NewExternalPort	out	ExternalPort	
NewProtocol	out	PortMappingProtocol	
NewInternalPort	out	InternalPort	
NewInternalClient	out	InternalClient	
NewEnabled	out	PortMappingEnabled	
NewPortMappingDescription	out	PortMappingDescription	
NewLeaseDuration	out	PortMappingLeaseDuration	

Table 1.13: Argument list of action GetGenericPortMappingEntry

1.17 GetSpecificPortMappingEntry

Argument name	Direction	Related state variable	Remarks
NewRemoteHost	in	RemoteHost	
NewExternalPort	in	ExternalPort	
NewProtocol	in	PortMappingProtocol	
NewInternalPort	out	InternalPort	
NewInternalClient	out	InternalClient	
NewEnabled	out	PortMappingEnabled	
NewPortMappingDescription	out	PortMappingDescription	
NewLeaseDuration	out	PortMappingLeaseDuration	

Table 1.14: Argument list of action GetSpecificPortMappingEntry

1.18 AddPortMapping

Port mapping entries are only allowed for hosts inside of LAN. Furthermore hosts can only add port mapping entries for themselves and not for other hosts in the LAN. It is not intended to allow port mapping entries for the guest network or hosts with IP addresses routed into WAN.

Argument name	Direction	Related state variable	Remarks
NewRemoteHost	in	RemoteHost	
NewExternalPort	in	ExternalPort	
NewProtocol	in	PortMappingProtocol	
NewInternalPort	in	InternalPort	
NewInternalClient	in	InternalClient	
NewEnabled	in	PortMappingEnabled	
NewPortMappingDescription	in	PortMappingDescription	
NewLeaseDuration	in	PortMappingLeaseDuration	

Table 1.15: Argument list of action AddPortMapping

1.19 DeletePortMapping

Argument name	Direction	Related state variable	Remarks
NewRemoteHost	in	RemoteHost	
NewExternalPort	in	ExternalPort	
NewProtocol	in	PortMappingProtocol	

Table 1.16: Argument list of action DeletePortMapping

1.20 GetExternalIPAddress

Argument name	Direction	Related state variable	Remarks
NewExternalIPAddress	out	ExternalIPAddress	

Table 1.17: Argument list of action GetExternalIPAddress

1.21 SetRouteProtocolRx

Argument name	Direction	Related state variable	Remarks
NewRouteProtocolRx	in	RouteProtocolRx	

Table 1.18: Argument list of action SetRouteProtocolRx

1.22 SetIdleDisconnectTime

Argument name	Direction	Related state variable	Remarks
NewIdleDisconnectTime	in	IdleDisconnectTime	

Table 1.19: Argument list of action SetIdleDisconnectTime

1.23 X_AVM_DE_GetAutoDisconnectTimeSpan

The value indicates the hour when the internet connection is terminated. It is used to prevent the 24h provider connection termination.

Argument name	Direction	Related state variable
NewX_AVM-DE_DisconnectPreventionEnable	out	X_AVM-DE_DisconnectPreventionEnable
NewX_AVM-DE_DisconnectPreventionHour	out	X_AVM-DE_DisconnectPreventionHour

Table 1.20: Argument list of action X_AVM_DE_GetAutoDisconnectTimeSpan

1.24 X_AVM_DE_SetAutoDisconnectTimeSpan

Argument name	Direction	Related state variable
NewX_AVM-DE_DisconnectPreventionEnable	in	X_AVM-DE_DisconnectPreventionEnable
NewX_AVM-DE_DisconnectPreventionHour	in	X_AVM-DE_DisconnectPreventionHour

Table 1.21: Argument list of action X_AVM_DE_SetAutoDisconnectTimeSpan

2 Service States Table

Variable Name	Allowed Values (* == default)	Type
AllowedCharsPassword	01234567890ABCDEFGHIJKLMNOPQRSTUV WXYZabcdefghijklmnopqrstuvwxyz-._@()#/%[] {}*+§$&=?!:;, (*)	String
AllowedCharsUsername	01234567890ABCDEFGHIJKLMNOPQRSTUV WXYZabcdefghijklmnopqrstuvwxyz-._@()#/%[] {}*+§$&=?!:;, (*)	String
ConnectionStatus	Unconfigured (*) Connecting Authenticating PendingDisconnect Disconnecting Disconnected Connected	String
ConnectionTrigger		String
ConnectionType	Unconfigured (*) IP_Routed IP_Bridged Unconfigured IP_Routed DHCP_Spoofed PPPoE_Bridged PPTP_Relay L2TP_Relay PPPoE_Relay	String
DNSEnabled	1 (*)	Boolean
DNSOverrideAllowed	0 (*)	Boolean
DNSServers		String
DownstreamMaxBitRate		ui4
Enable		Boolean
ExternalIPAddress		String
ExternalPort	[1, 65535]	ui2
IdleDisconnectTime		ui4
InternalClient		String
InternalPort	[1, 65535]	ui2
LastAuthErrorInfo		String

Variable Name	Allowed Values (* == default)	Type
LastConnectionError	ERROR_NONE (*) ERROR_ISP_TIME_OUT ERROR_COMMAND_ABORTED ERROR_NOT_ENABLED_FOR_INTERNET ERROR_BAD_PHONE_NUMBER ERROR_USER_DISCONNECT ERROR_ISP_DISCONNECT ERROR_IDLE_DISCONNECT ERROR_FORCED_DISCONNECT ERROR_SERVER_OUT_OF_RESOURCES ERROR_RESTRICTED_LOGON_HOURS ERROR_ACCOUNT_DISABLED ERROR_ACCOUNT_EXPIRED ERROR_PASSWORD_EXPIRED ERROR_AUTHENTICATION_FAILURE ERROR_NO_DIALTONE ERROR_NO_CARRIER ERROR_NO_ANSWER ERROR_LINE_BUSY ERROR_UNSUPPORTED_BITSPERSECOND ERROR_TOO_MANY_LINE_ERRORS ERROR_IP_CONFIGURATION ERROR_UNKNOWN	String
MACAddress		String
MaxCharsPassword	64 (*)	ui2
MaxCharsUsername	128 (*)	ui2
MinCharsPassword	3 (*)	ui2
MinCharsUsername	3 (*)	ui2
Name		String
NATEnabled	1 (*)	Boolean
Password		String
PortMappingDescription	Some characters need to be escaped to work with XML. As Help see: https://en.wikipedia.org/wiki/List_of_XML_and_HTML_character_entity_references#Predefined_entities_in_XML	String
PortMappingEnabled		Boolean
PortMappingLeaseDuration		ui4
PortMappingNumberOfEntries		ui2
PortMappingProtocol	UDP, TCP	String
PossibleConnectionTypes	Unconfigured IP_Routed DHCP_Spoofed PPPoE_Bridged PPTP_Relay L2TP_Relay PPPoE_Relay	String
PPPoEACName		String

Variable Name	Allowed Values (* == default)	Type
PPPoEServiceName		String
RemoteIPAddress		String
RemoteHost		String
RouteProtocolRx	Off (*)	String
RSIPAvailable	0 (*)	Boolean
TransportType		String
UpstreamMaxBitRate	0 (*)	ui4
Uptime	0 (*)	ui4
UserName		String
X_AVM-DE_DisconnectPreventionEnable		Boolean
X_AVM-DE_DisconnectPreventionHour		ui2 [0...23]
X_AVM-DE_IPv6ConnectionStatus	Unconfigured (*) Connecting Authenticating PendingDisconnect Disconnecting Disconnected Connected	String
X_AVM-DE_IPv6Uptime	0 (*)	ui4

Table 2.1: Variable list