



TPKT

ISO transport services on top of the TCP (TPKT)

"Emulate" ISO transport services [COTP](#) on top of [TCP](#). The two major points missing in TCP (compared to [COTP](#)) are the TSAP addressing and the detection of packet boundaries on the receiving host. See the [IsoProtocolFamily](#) page for an overview.

History

As TCP becomes more and more popular (around 1995?), a mechanism was needed to encapsulate ISO services on top of TCP transport, as both protocols have similar tasks and [COTP](#) was becoming obsolete these days.

Protocol dependencies

- [TCP](#): Typically, TPKT uses [TCP](#) as its transport protocol. The well known TCP port for TPKT traffic is 102.

Example traffic

(Untitled) - Wireshark

File Edit View Go Capture Analyze Statistics Help

Filter: `ip.addr == 192.168.119.74` Expression... Clear Apply

No. -	Time	Source	Destination	Protocol	Info
85	6.794567	192.168.119.145	192.168.119.74	T.125	
86	6.796700	192.168.119.74	192.168.119.145	TCP	ms-wbt-server >
87	6.828271	192.168.119.74	192.168.119.145	T.125	
88	6.828467	192.168.119.74	192.168.119.145	T.125	
89	6.828491	192.168.119.145	192.168.119.74	TCP	5245 > ms-wbt-s
90	6.828751	192.168.119.145	192.168.119.74	T.125	
91	6.829204	192.168.119.145	192.168.119.74	T.125	
92	6.830312	192.168.119.74	192.168.119.145	TCP	ms-wbt-server >
93	6.830607	192.168.119.74	192.168.119.145	T.125	
94	6.896405	192.168.119.145	192.168.119.74	TPKT	Continuation
95	6.915550	192.168.119.74	192.168.119.145	TPKT	Continuation
96	6.915883	192.168.119.74	192.168.119.145	TPKT	Continuation
97	6.915911	192.168.119.145	192.168.119.74	TCP	5245 > ms-wbt-s
98	6.916068	192.168.119.74	192.168.119.145	TPKT	Continuation
99	6.916247	192.168.119.74	192.168.119.145	TPKT	Continuation
100	6.916265	192.168.119.145	192.168.119.74	TCP	5245 > ms-wbt-s
101	6.990376	192.168.119.74	192.168.119.145	T.125	
102	6.992716	192.168.119.145	192.168.119.74	T.125	
103	7.136964	192.168.119.145	192.168.119.74	TPKT	Continuation
104	7.138187	192.168.119.74	192.168.119.145	TCP	ms-wbt-server >
106	7.593791	192.168.119.145	192.168.119.74	TPKT	Continuation

Wireshark

The TPKT dissector is fully functional.

Preference Settings

* Whether TPKT packets spanning multiple TCP segments should be reassembled or not, for VoIP traffic this setting is essential.

Example capture file

XXX - Add a simple example capture file to the [SampleCaptures](#) page and link from here. Keep it short, it's also a good idea to gzip it to make it even smaller, as Wireshark can open gzipped files automatically.

Display Filter

A complete list of TPKT display filter fields can be found in the [display filter reference](#)

Show only the TPKT based traffic:

tpkt

Capture Filter

You can filter TPKT protocols while capturing, as it's always using TCP port 102.

Capture only the TPKT based traffic (you will only see TPKT, but not additions like the corresponding ARP packets):

tcp port 102

External links

- [RFC1006](#) *ISO Transport Service on top of the TCP Version: 3*, based on ISO 8073 which is available as [RFC905](#)
- [RFC2126](#) *ISO Transport Service on top of TCP (ITOT)*

Obsolete:

- [RFC983](#) *ISO Transport Services on Top of the TCP*

Discussion

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