Delay Critical Application对应的5QI [R16 TS 23.501 Table 5.7.4-1]

5QI Value	Resource Type	Default Priority Level	Packet Delay Budget	Packet Error Rate	Default Maximum Data Burst Volume (NOTE 2)	Default Averaging Window	Example Services
82	Delay Critical GBR	19	**10 ms (NOTE 4)**	10-4	**255 bytes**	2000 ms	**Discrete Automation (see TS 22.261 [2])**
83	Delay Critical GBR	22	**10 ms (NOTE 4)**	10-4	**1354 bytes (NOTE 3)**	2000 ms	**Discrete Automation (see TS 22.261 [2])**
84	Delay Critical GBR	24	**30 ms (NOTE 6)**	10-5	**1354 bytes (NOTE 3)**	2000 ms	**Intelligent transport systems (see TS 22.261 [2])**
85	Delay Critical GBR	21	**5 ms (NOTE 5)**	10-5	**255 bytes**	2000 ms	**Electricity Distribution- high voltage (see TS 22.261 [2])**

NOTE 1:A packet which is delayed more than PDB is not counted as lost, thus not included in the PER.
NOTE 2:It is required that default MDBV is supported by a PLMN supporting the related 5QIs.
NOTE 3:This MDBV value is set to 1354 bytes to avoid IP fragmentation for the IPv6 based, IPSec protected GTP tunnel to the 5G-AN node (the value is calculated as in Annex C of TS 23.060 [56] and further reduced by 4 bytes to allow for the usage of a GTP-U extension header).
NOTE 4:A static value for the CN PDB of 1 ms for the delay between a UPF terminating N6 and a 5G-AN should be subtracted from a given PDB to derive the packet delay budget that applies to the radio interface. When a dynamic CN PDB is used, see clause 5.7.3.4.
NOTE 5:A static value for the CN PDB of 2 ms for the delay between a UPF terminating N6 and a 5G-AN should be subtracted from a given PDB to derive the packet delay budget that applies to the radio interface. When a dynamic CN PDB is used, see clause 5.7.3.4.
NOTE 6:A static value for the CN PDB of 5 ms for the delay between a UPF terminating N6 and a 5G-AN should be subtracted from a given PDB to derive the packet delay budget that applies to the radio interface. When a dynamic CN PDB is used, see clause 5.7.3.4.

需求汇总：网络视角对时延、带宽、抖动和可靠关键指标分级

时延可分4级：>5ms，5-10ms，10-100ms，<100ms

带宽可分为4级：<10Mbit/s，10-20Mbit/s，20Mbit/s-1 Gbit，<1 Gbit

抖动可分3级：1μs，10%*CT，50%*CT

可靠可分为2级：6个9，3个9

Class	Use case	# Slaves	Data Size	Cycle Time	Total Net Rate	Service area	Jitter	iability
运动控制	大型打印机	> 100	20 byte	< 2 ms	>8 Mbit/s	100 *100 *30 m	1μs	6个9
	数控车床	20	50 byte	< 0.5 ms	>16 Mbit/s	15 *15 *3 m	1μs	6个9
	包装设备	50	40 byte	< 1 ms	>16 Mbit/s	10 *5 *3 m	1μs	6个9
机器间控制（C2C）	多台独立机器间协作	5-10 (未来100)	>1 KB	4-10ms	/	/	1μs	6个9
移动面板控制 带安全按键	装配机器人（或机床）	4	40-250bytes	4-8ms	/	10*10m	50%*CT	6个9
			/	<30ms	>5 MB / s			
	移动式起重机	2	40-250bytes	12ms	/	典型：40*60m 最大：200*300m	50%*CT	6个9
工业AR	高清（1280×720）	3个/基站	/	10ms	1.33 Gbit/s	/	/	3个9
	全高清（1920×1080）				3 Gbit/s			
大规模连接与监控（流程行业）	基于安全应用	1万	/	5-10ms	100Mbit/s	1000*1000m	10%*CT	6个9
	基于事件应用		/	50ms-1s			/	3个9
	基于区间应用		/	50ms-1s			/	3个9
移动机器人	精准运动控制	100	40-250 byte	1ms	/	覆盖室内（从地下室到屋顶）、室外和室内/室外都具备场景	50%*CT	6个9
	机器间控制			1~10ms	/			
	协作驾驶			10~50ms	/			
	远程视频控制			10~100ms	>10Mbit/s			
	运行路径管理			40~500ms	/			

双向时延，单向/2

并不是抖动，是使用同步精度要求