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SERVICE DATA ADAPTATION PROTOCOL (SDAP)

Diverse traffic types

Voice	Broadband	Massive MTC	URLLC
Low data rate Steady traffic	High data rate Burst traffic	Low data Large number of devices	High reliability Low latency

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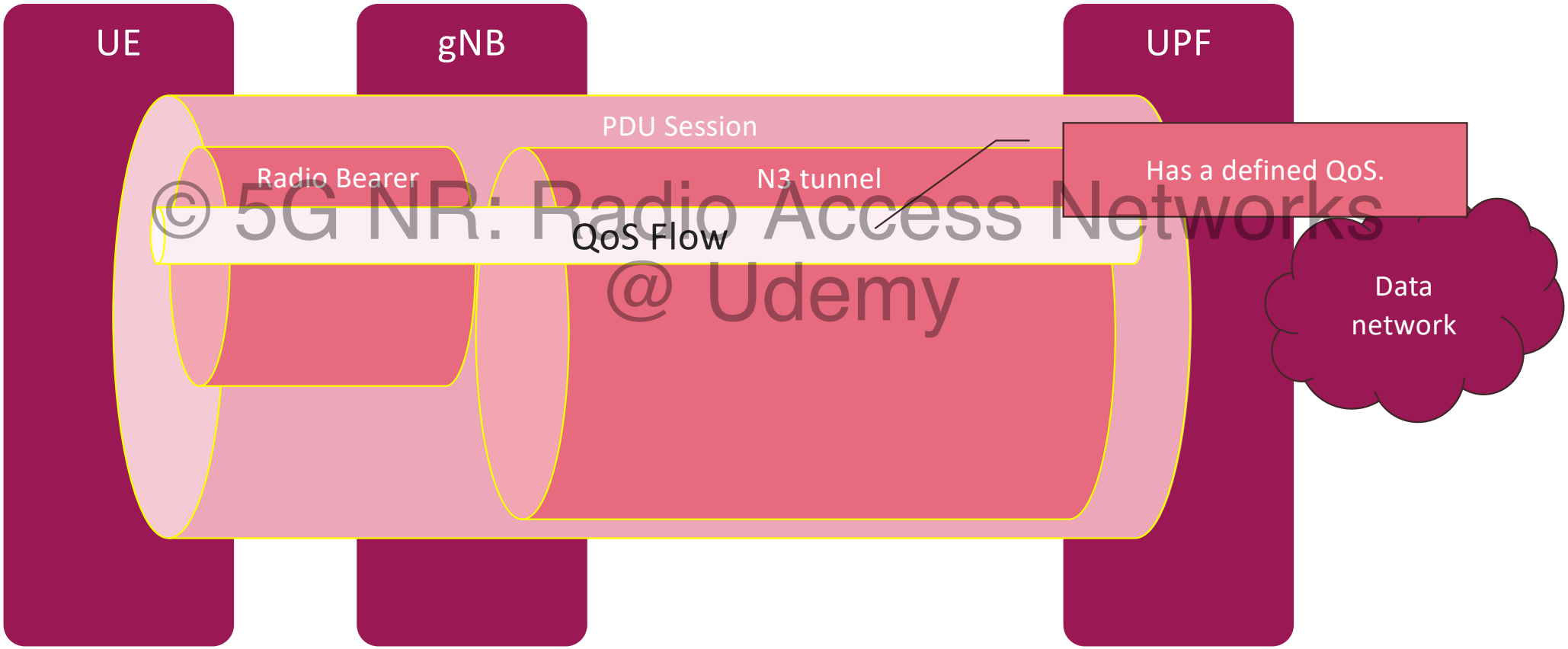
“the technology that manages the data traffic to achieve the desired performance”

QoS Flows: QFI

QoS Flows



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QoS Flow types

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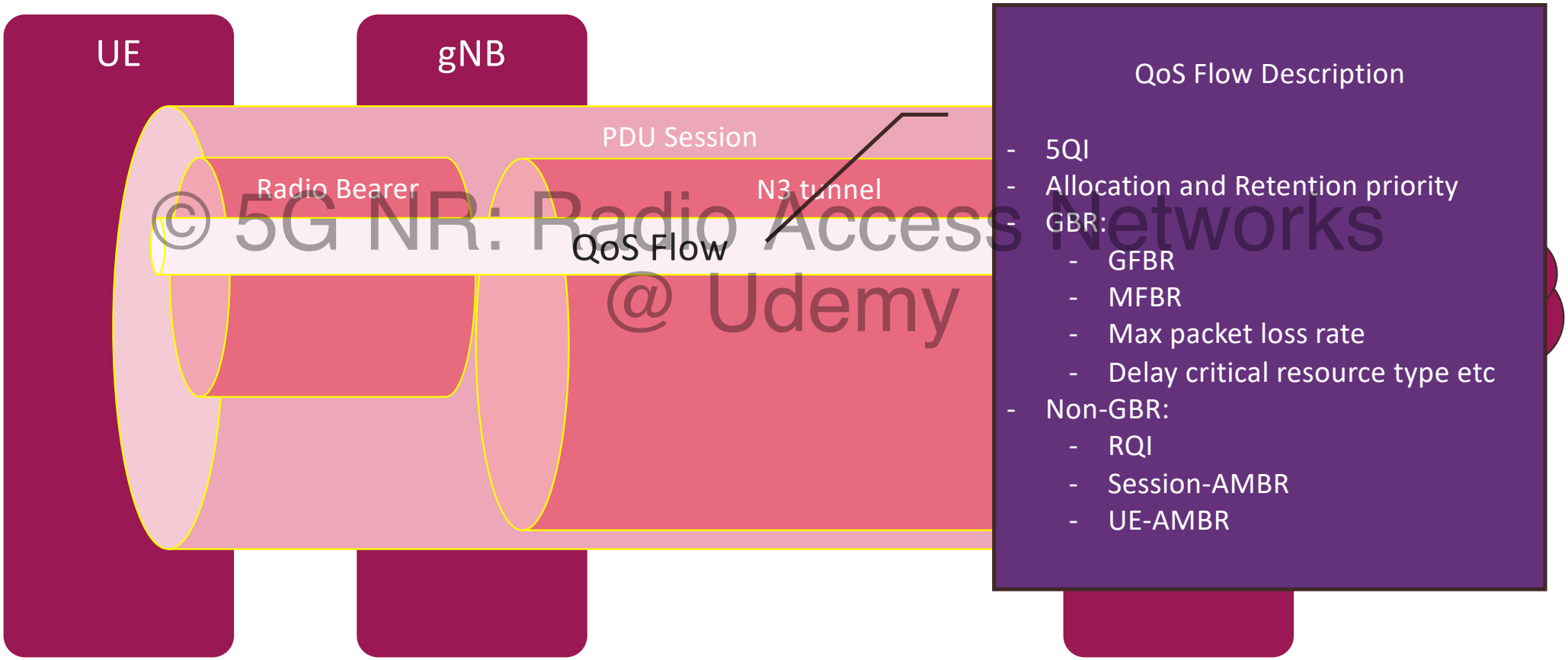
GBR

Non-GBR

Delay Critical

QoS Flows



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5QI

Non-GBR (Non Guaranteed bit rate)

GBR (Guaranteed bit rate)

Delay critical GBR

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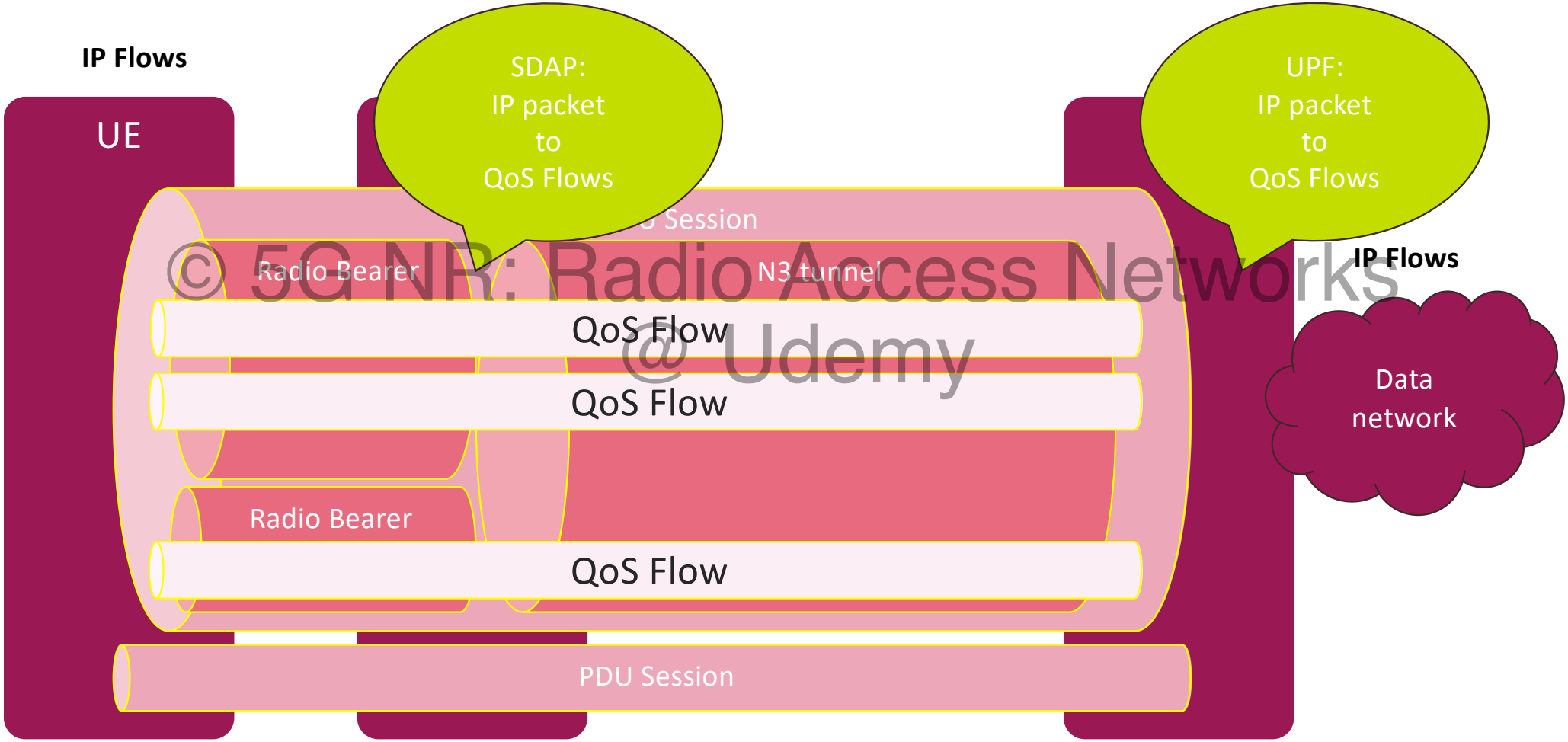
5QI Value	Resource Type	Default Priority Level	Packet Delay Budget	Packet Error Rate	Default Maximum Data Burst Volume (NOTE 2)	Default Averaging Window	Example Services
1	GBR NOTE 1	20	100 ms	10^{-2}	N/A	2000 ms	Conversational Voice
2		40	150 ms	10^{-3}	N/A	2000 ms	Conversational Video (Live Streaming)
3		30	50 ms	10^{-3}	N/A	2000 ms	Real Time Gaming, V2X messages Electricity distribution – medium voltage, Process automation - monitoring
4		50	300 ms	10^{-6}	N/A	2000 ms	Non-Conversational Video (Buffered Streaming)
65		7	75 ms	10^{-2}	N/A	2000 ms	Mission Critical user plane Push To Talk voice (e.g., MCPTT)
66		20	100 ms	10^{-2}	N/A	2000 ms	Non-Mission-Critical user plane Push To Talk voice
67		15	100 ms	10^{-3}	N/A	2000 ms	Mission Critical Video user plane
75		25	50 ms	10^{-2}	N/A	2000 ms	V2X messages
	Non-GBR NOTE 1	10	100 ms	10^{-6}	N/A	N/A	IMS Signalling
		60	300 ms	10^{-6}	N/A	N/A	Video (Buffered Streaming) TCP-based (e.g., www, e-mail, chat, ftp, p2p file sharing, progressive video, etc.)
7		70	100 ms	10^{-3}	N/A	N/A	Voice, Video (Live Streaming) Interactive Gaming
8		80	300 ms	10^{-6}	N/A	N/A	Video (Buffered Streaming) TCP-based (e.g., www, e-mail, chat, ftp, p2p file sharing, progressive video, etc.)
9		90					
69		5	60 ms	10^{-6}	N/A	N/A	Mission Critical delay sensitive signalling (e.g., MC-PTT signalling)
70		55	200 ms	10^{-6}	N/A	N/A	Mission Critical Data (e.g. example services are the same as QCI 6/8/9)
79		65	50 ms	10^{-2}	N/A	N/A	V2X messages
80		68	10 ms	10^{-6}	N/A	N/A	Low Latency eMBB applications Augmented Reality
81	Delay Critical GBR	11	5 ms	10^{-5}	160 B	2000 ms	Remote control (see TS 22.261 [2])

Multiplexing



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Uplink QoS

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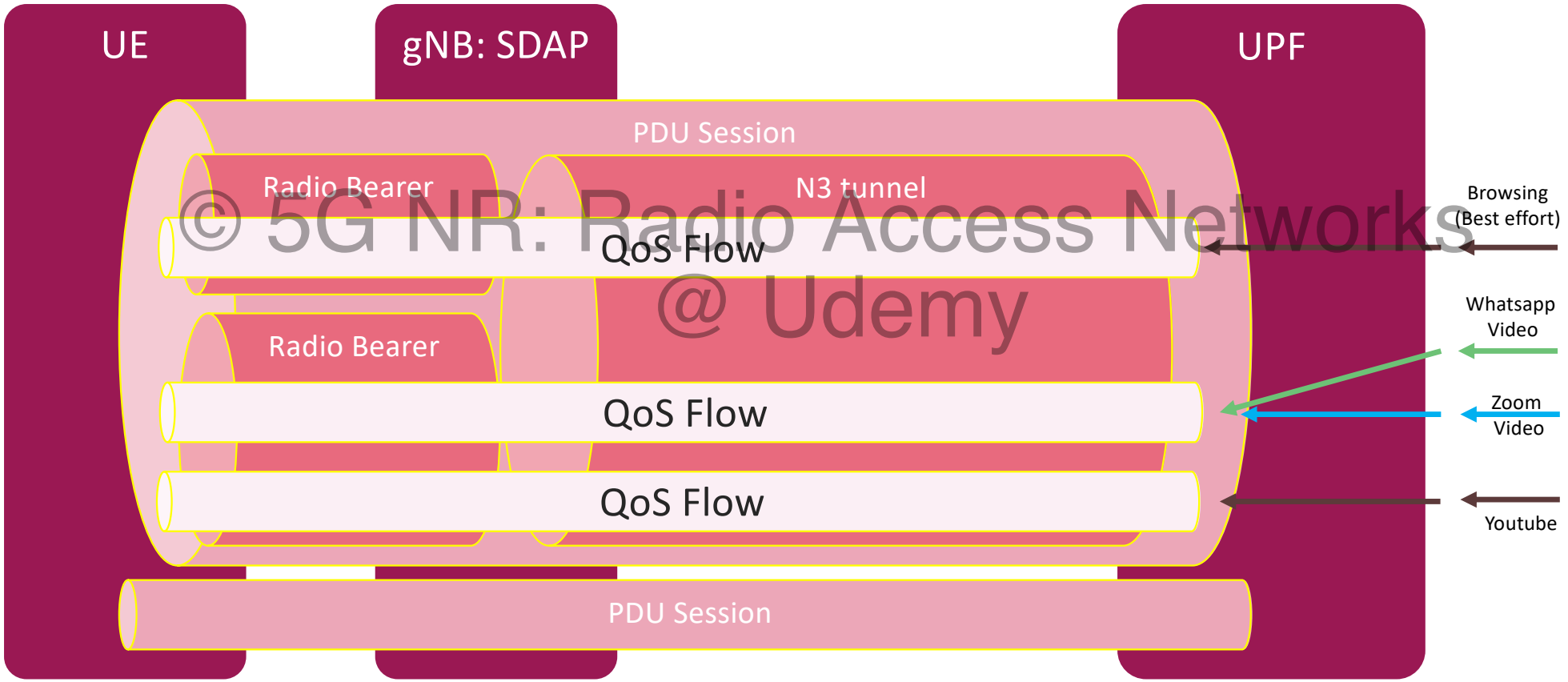
Reflective Mapping

Explicit Mapping

Example



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THANK YOU

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