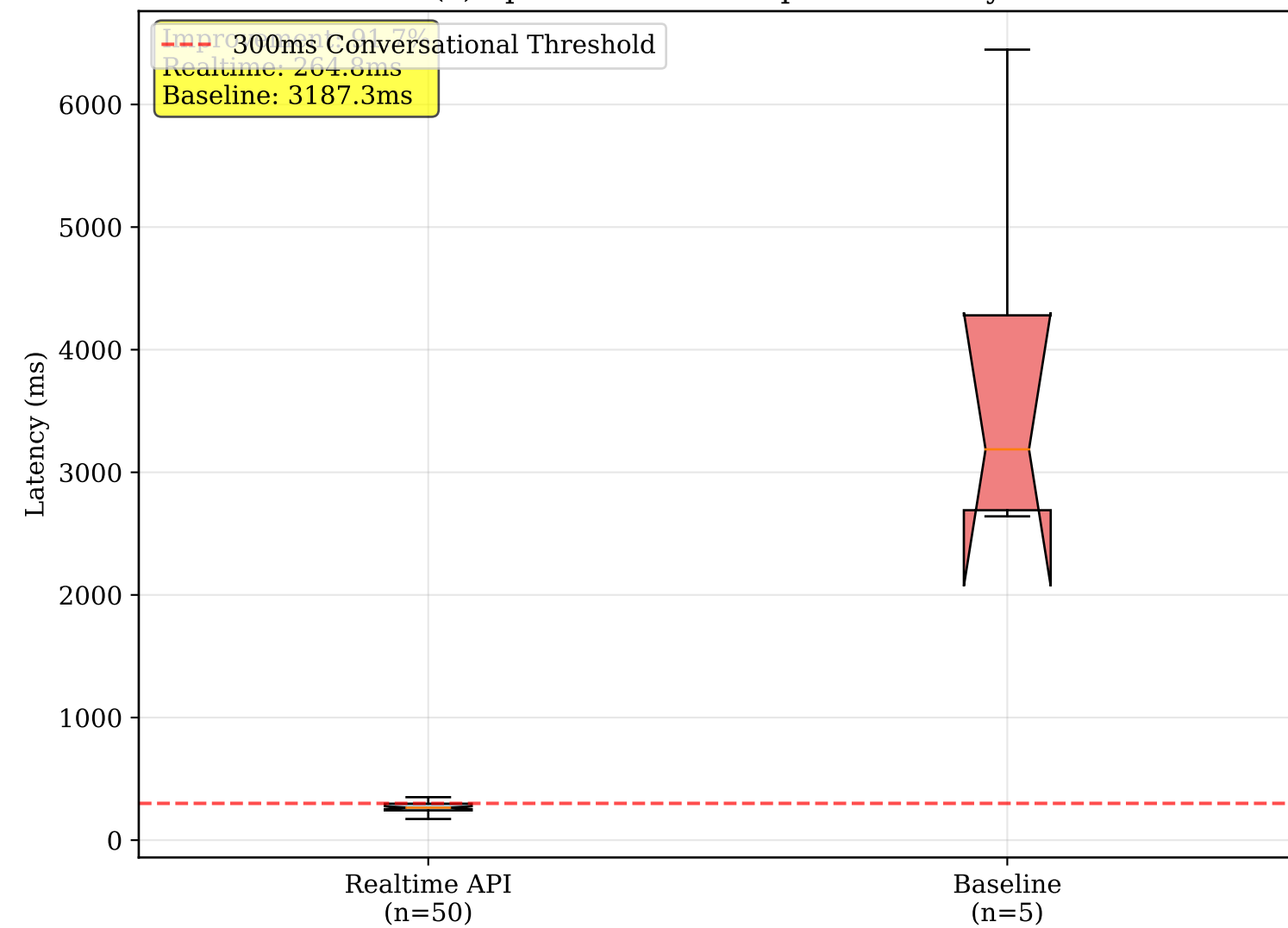
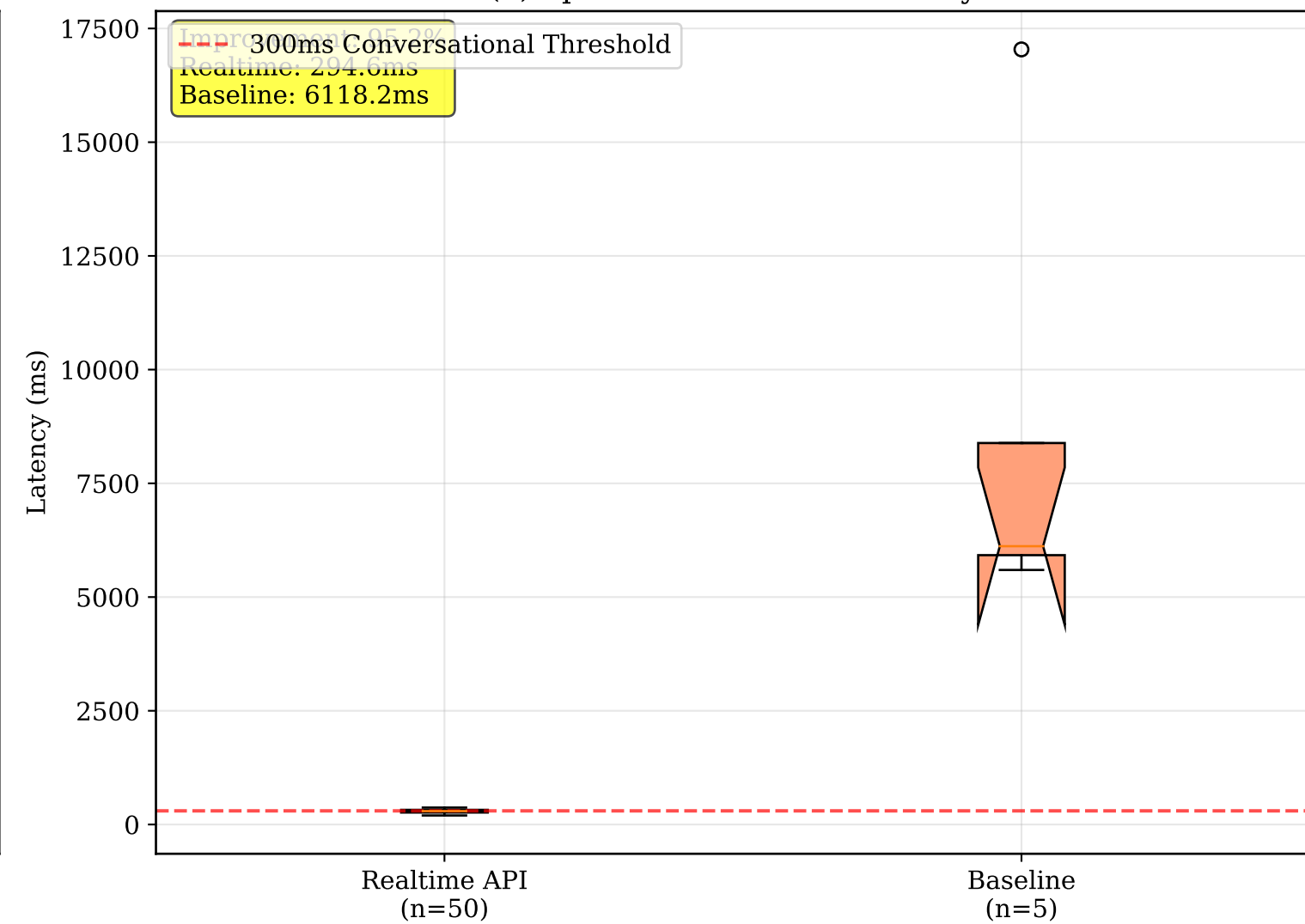


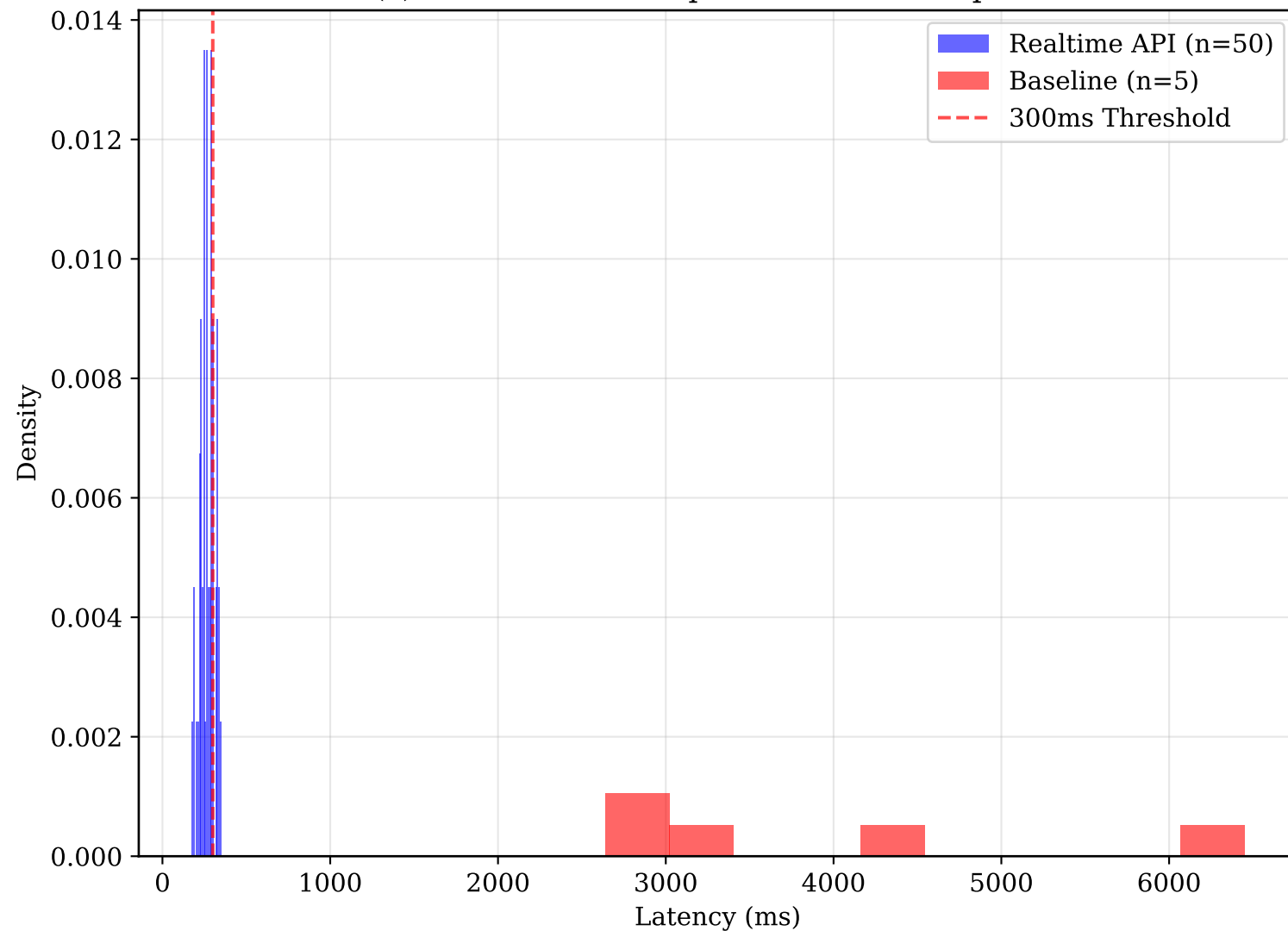
(a) Speech → First Response Latency



(b) Speech → TTS Start Latency



(c) Distribution Comparison - First Response



(d) Performance Statistics Summary

Metric	Realtime API	Baseline	Improvement
First Response (median)	264.8ms	3187.3ms	91.7%
TTS Start (median)	294.6ms	6118.2ms	95.2%
First Response (95% CI)	[187.7, 338.8]ms	[2645.9, 6230.6]ms	-
Sub-300ms Success Rate	78.0%	0.0%	-