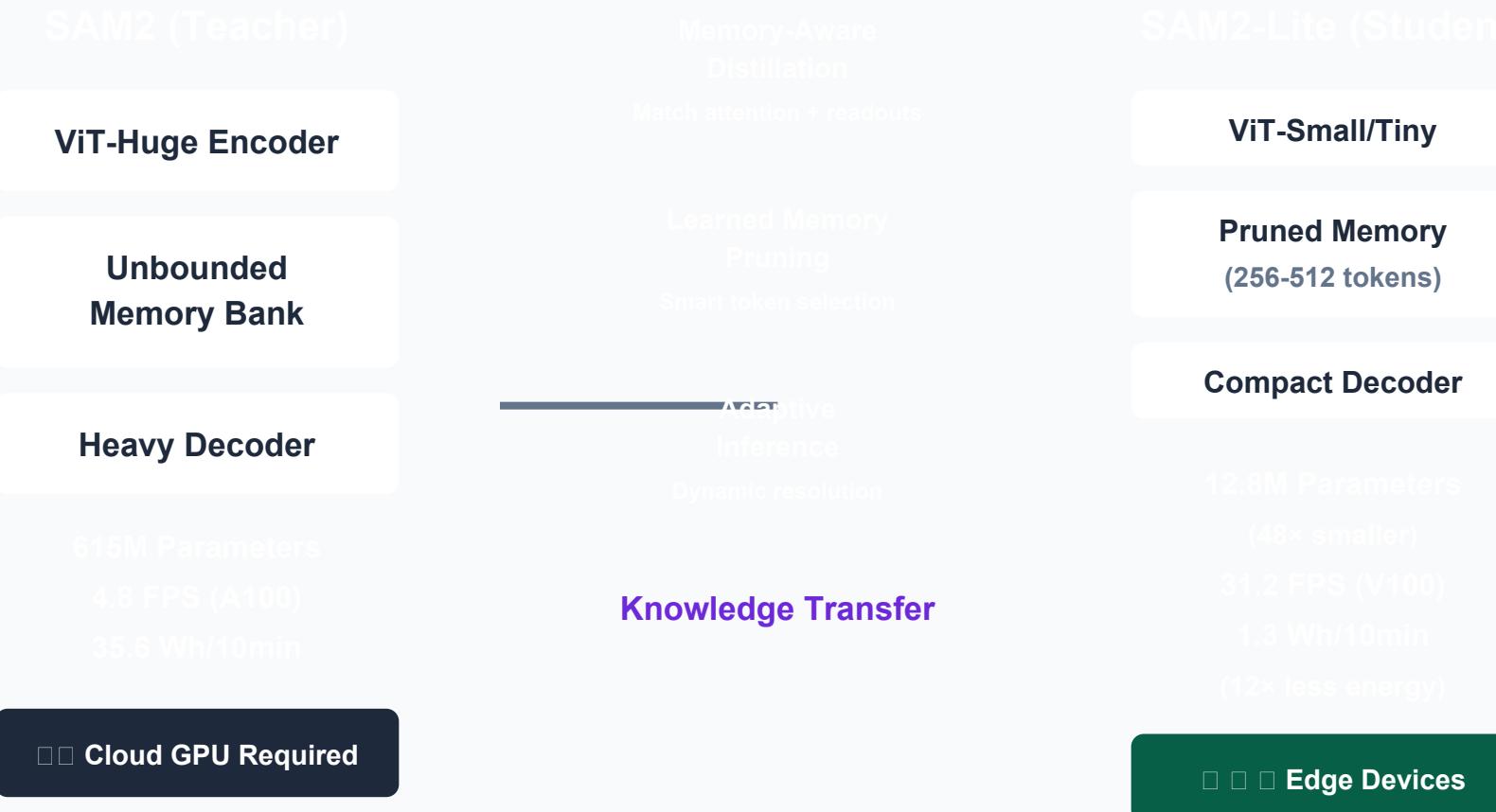


# SAM2-Lite: Memory-Aware Knowledge Distillation for Edge Video Segmentation



## Key Results on DAVIS 2017

### Accuracy (J&F):

SAM2: 86.5%

SAM2-Lite: 83.1% (96% of teacher)

### Speed Improvement:

- 12x less energy
- 48x fewer params
- 20-35ms on Jetson

### Runs Real-Time On:

Jetson  
Nano / Orin  
**28-48ms**

iPhone 14  
Mobile  
**19-28ms**

Pixel 7  
Android  
**31-45ms**

Enables privacy-preserving, low-latency, and energy-efficient video segmentation on edge devices