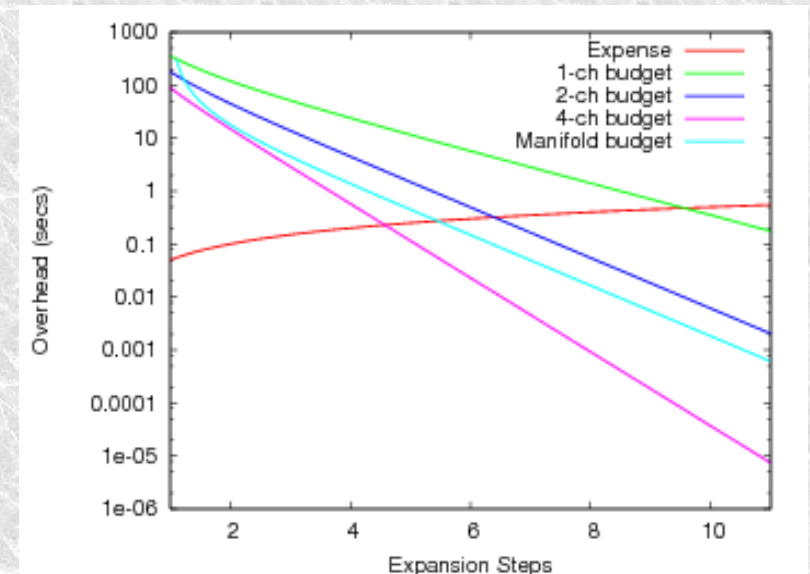
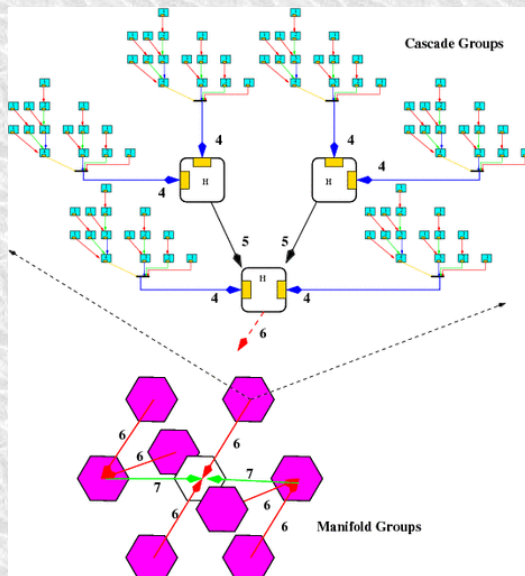




Massively Parallel Technologies

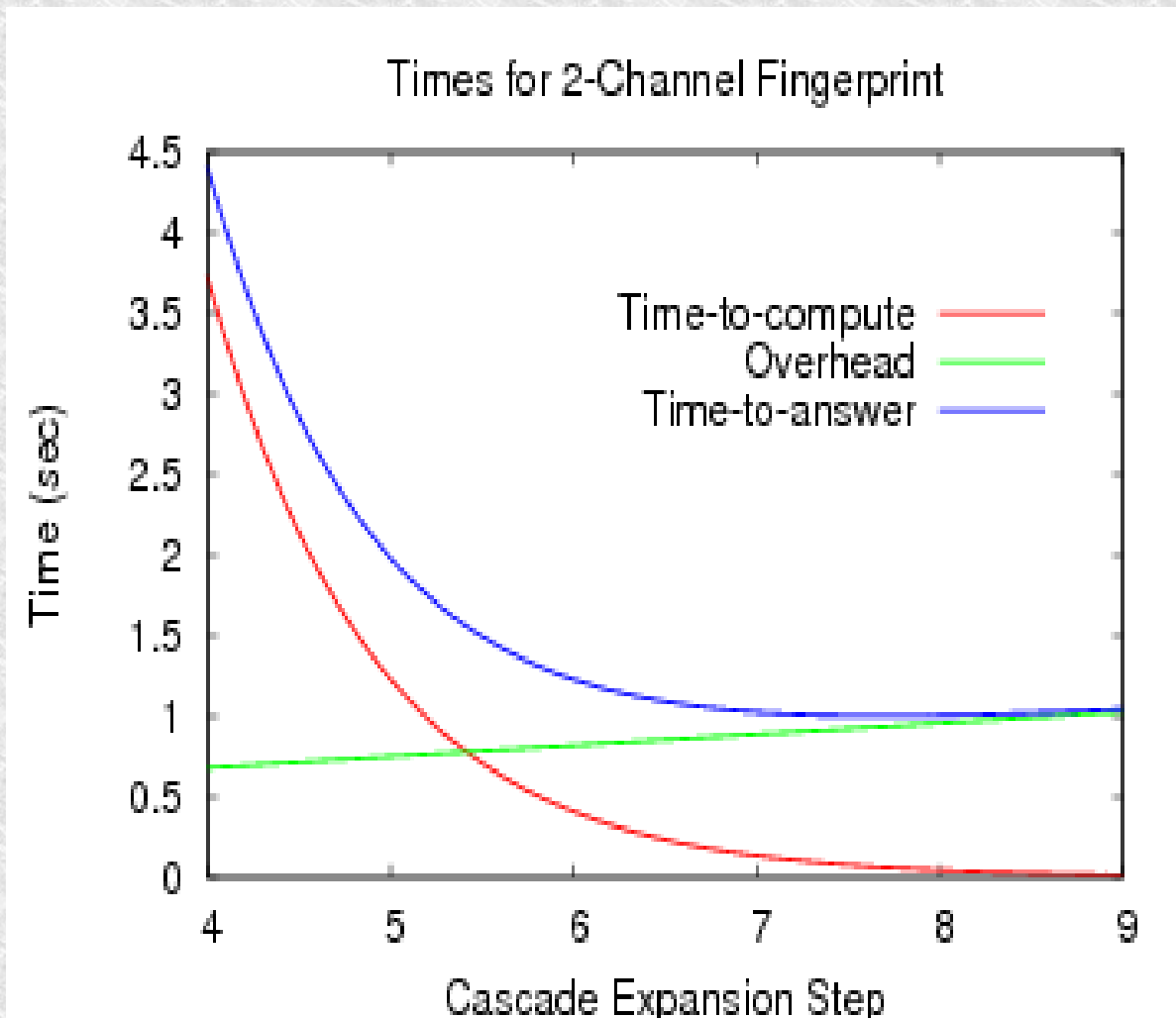
System Overhead Management for Biometric Applications Using HOWARD[®] Cascade-based Compute Engines

Kevin David Howard
James A. Lupo





Choosing Efficiency as an Economic Exercise



One can now decide to accept a lower efficiency for shorter time to answer and know what to expect.

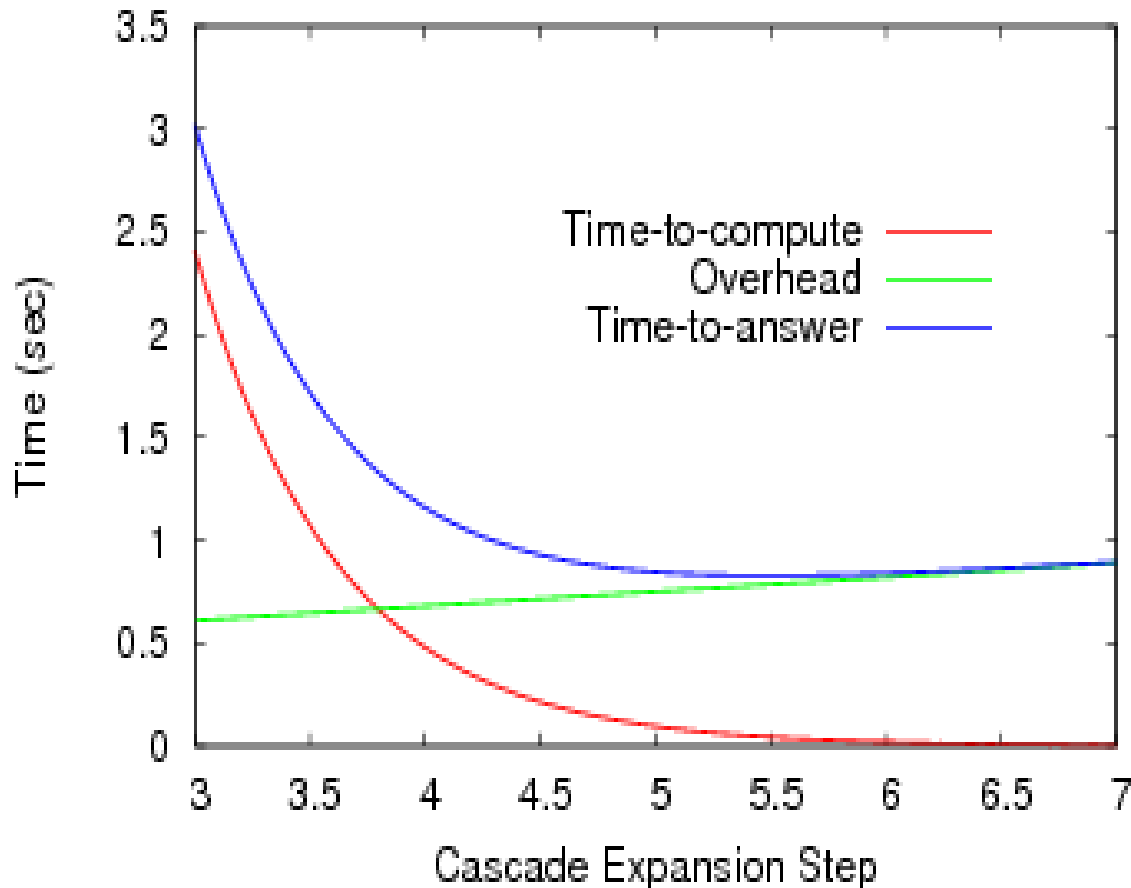
5 expansion steps:

- 242 nodes
- 79% efficiency
- 2.0 sec time-to-answer



Comparing Other Channel Counts

Projected Times for 4-Channel Fingerprint



3 expansion steps:

- 124 nodes
- 3.0 sec time-to-answer
- 87% efficiency

4 expansion steps:

- 624 nodes
- 1.2 sec time-to-answer
- 44% efficiency