Response Time Analysis: Security Patterns Tier: server, Concurrency: 50 Normal Traffic Pattern Baseline response time distribution Mean: ~100ms, Low variance Mean: 99.4ms Median: 99.5ms 10^{2} 95th: 132.0ms Frequency (log scale) 10^{0} 80 60 100 120 140 160 40 Response Time (ms) Milli-Bottleneck Attack Pattern Short, intense spikes in response times Possible DoS attempt Mean: 499.5ms Median: 500.0ms 10^{2} 95th: 660.0ms Frequency (log scale) 10⁰ 700 200 300 400 500 600 800 Response Time (ms) Resource Exhaustion Pattern Gradual degradation pattern System resource depletion Mean: 292.4ms Median: 206.5ms 95th: 856.0ms 10^{2} Frequency (log scale) 10^{0} 500 1000 1500 2000 Response Time (ms) Synchronized Attack Pattern Coordinated attack pattern Multiple simultaneous requests Mean: 402.5ms Median: 373.0ms 95th: 775.0ms 10^{2} Frequency (log scale) 10° 250 500 750 1000 0 1250 1500 1750 Response Time (ms) Pattern with Countermeasures Protected system response Reduced impact of attacks Mean: 148.7ms Median: 149.0ms 10² 95th: 196.0ms Frequency (log scale) 10^{0} 225 75 100 125 175 200 250 50 150 Response Time (ms)