

## PMA

Programmable Matching Accelerator

Cogent's **Programmable Matching Accelerator (PMA)** product line leads the industry in high-speed, high-accuracy finger and palm print matching. Based on an advanced "Super Pipeline, Super Parallel" design architecture and a new generation of field-programmable gate arrays, the PMA is quickly becoming the industry standard for AFIS matching.

Cogent's PMAs are the first commercially available fingerprint comparison servers based on advanced data flow computing. PMAs can support real-time identification – supporting applications that require searching databases of tens of millions of subjects in seconds.

The PMA product line is successfully being used by law enforcement and civilian agencies around the world. Providing 99.9% accuracy, the PMA architecture is the leader in identification accuracy. The PMA's COTS approach and modular design, combined with its "on demand" architecture, provides customers with improved reliability, increased availability, and lower total cost of ownership.

### Scalability:

PMAs can be combined in modular units that are linearly scaled to handle databases of tens of millions of fingerprint records with response times of seconds. Utilizing Field Programmable Gate Arrays, the PMA subsystem can be programmed to perform a variety of matching tasks for fingerprints, palm prints, facial images, and other biometric identifiers. The linear scalability of the PMA subsystem architecture can accommodate almost any database size and response time requirement. Additional PMAs can be configured to upgrade systems that must meet evolving needs for larger databases while maintaining or increasing system throughput.



# The Outstanding Matching Engine

## Investment Protection

Featuring a mirrored hardware architecture, the PMA provides both data and hardware fault tolerance. With an “active-active” processor configuration, the PMA subsystem dynamically optimizes throughput performance should a failure occur. A PMA subsystem can easily be upgraded with Cogent's latest biometric matching technology to support growth, expansion, new technology insertion, and ensure investment protection. From the first generation PMA operating at 15,000 matches per second to those today operating at over 1,000,000 matches per second, Cogent's PMA architecture provides investment protection for the long term as your mission critical and operational needs dictate.

## Flexibility

The PMA product line also affords redundancy and flexibility.

The matching technology for the PMA subsystems features a multi-level comparison-elimination with multiple matching stages that are field-proven to deliver the highest levels of accuracy in the industry, as demonstrated by independent benchmark results.

## Benefits:

- ▶ Linearly scalable, capacity can be added “on demand”
- ▶ Highest performance and accuracy for real-time identification
- ▶ Super-Pipeline architecture for speed
- ▶ COTS approach for lower ongoing cost
- ▶ Configurable software can meet various matching needs
- ▶ Redundant components for greater system availability
- ▶ Lower total cost of ownership
- ▶ Field programmable logic for investment protection
- ▶ Compact system footprint