Faster *PROCESSING* through SMART SYSTEMS

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Muehlbauer's Seamless Travel Corridor represents a groundbreaking approach to border crossing, allowing travelers to navigate security with minimal interaction and no need to show documents. Travelers simply walk through the corridor without stopping – and perhaps without even noticing, and are recognized and identified by the smart frame. This innovative system utilizes advanced machine learning, artificial intelligence technologies and image processing for efficient background processing, employing facial identification and person re-identification with tracking capabilities.

Designed for a small footprint, the Seamless Travel Corridor can be easily deployed across various locations, including airports, land borders, and seaports, all while prioritizing security and privacy by design. The system uses multiple high-resolution cameras – typically three –, which provide high-quality images with fast transmission speeds (less than 30 milliseconds possible). Ensuring flexibility in deployment, it supports various standard protocols such as USB and RTSP, as well as a specially developed Muehlbauer high-speed protocol that communicates over a 10 Gbps network and can handle video streaming in 4k without any compression on the image. With low communication latencies, the visualizer software enables near real-time image monitoring via tablet or computer using a web service.

Its ability to capture individuals in random group formations – regardless of active cooperation – greatly enhances its effectiveness. The system can detect persons at distances of up to 12 meters, track and match faces up to 8 meters away (with a standard of 7 meters), achieving throughput rates three times greater than traditional eGates within the same physical space.

The pre-registration prior to crossing the corridor is possible with electronic Machine Readable Travel Documents (eMRTD) or digital IDs (such as mobile Driver's Licenses, Digital Travel Credentials, or Digital Travel Authorizations). The Seamless Travel Corridor can be seamlessly integrated with existing Border Management Systems (BMS), ensuring a smooth transition to more efficient border control practices.

Moreover, this system is cost-effective, using compact hardware for processing without the need for a full server. The corridor can be installed in blocks or segments, allowing for customization based on spatial configurations, and the models are self-trained using data that is completely free of licensing costs.

This innovative solution not only revolutionizes border management but also enhances the overall travel experience, ensuring both security and efficiency. ☒