

# NANO TDF TECHNOLOGY

IMPLEMENT A ZERO TRUST ARCHITECTURE AND PROTECT CUI AND PROPRIETARY DATA IN ALL FORMATS  
CONTROL YOUR DATA AND SHARE IT WITH THOSE WHO HAVE A NEED TO KNOW



## THE AVESHKA ADVANTAGE

Aveshka is partnering with Virtru to help you securely share sensitive information between trusted agencies and partners—from large-scale data lakes to nano-scale edge sensors.

Using Virtru's TDF platform SDK, Aveshka has developed and deployed new data security features. Bring this to an existing data ecosystem to make it the true Zero Trust architecture you need. You can share data with those who have a need-to-know, and with confidence that data is under your control across its full life cycle.

Aveshka and Virtru recently tested the integration of NanoTDF in the field with edge device Full Motion Video (FMV), creating a first-of-its-kind capability—all while **adding only 40 bytes to the payload!**



## WHAT IS THE TRUSTED DATA FORMAT (TDF)?

Virtru's platform leverages the Trusted Data Format (TDF), an **ODNI standard, open data format**, that keeps data protected and under the data owner's control no matter where or when it is created or shared.

Data owners can apply discrete policies and rules for Attribute-Based Access Control (ABAC) to the data. The **TDF is agnostic to encryption algorithms**, so you can flexibly change methods as the threat picture evolves.



## WHAT IS VIRTRU'S NANO TDF?

Virtru's platform leverages the Nano Trusted Data Format (TDF), which is everything you love about TDF, but at nanoscale.

Virtru created NanoTDF as a simple and lightweight option small enough to be implemented on platforms with a small footprint and minimal compute resources, such as a tiny edge sensor. As data is recorded by the sensor, it is encrypted into a TDF before ever leaving the device. This renders data truly protected throughout its life cycle.



## NANO TDF FIELD TEST

At the Department of Defense (DoD) "Innovation Battle Lab" exercise, Aveshka and Virtru demonstrated NanoTDF with FMV encryption capabilities.

NanoTDF was integrated with various technologies, to include commercial, low-bandwidth asynchronous messaging satellite communications and commercial 5G cellular networks and encryption of live video with ABAC.

The team ran Artificial Intelligence (AI) algorithms on the device, where video footage was encrypted in small configurable chunks and was TDF'd for true Zero Trust from data creation.

The open source AI algorithm cued on whether a person was in the frame or not. Access control decisions were auto-determined based on the cue, proving support of AI-based ABAC.

The field test supported a wide variety of communications channels and rapid integration onto other platforms and sensors.

## BENEFITS OF VIRTRU'S NANO TDF

- Little to no integration or reconfiguration to deploy
- Lightweight: adds ~40 bytes to the packet payload; very minimal compute overhead
- Proven ability to support a wide variety of communications channels
- FedRAMP Moderate approved; Approved to run on secure networks (more details available.)

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