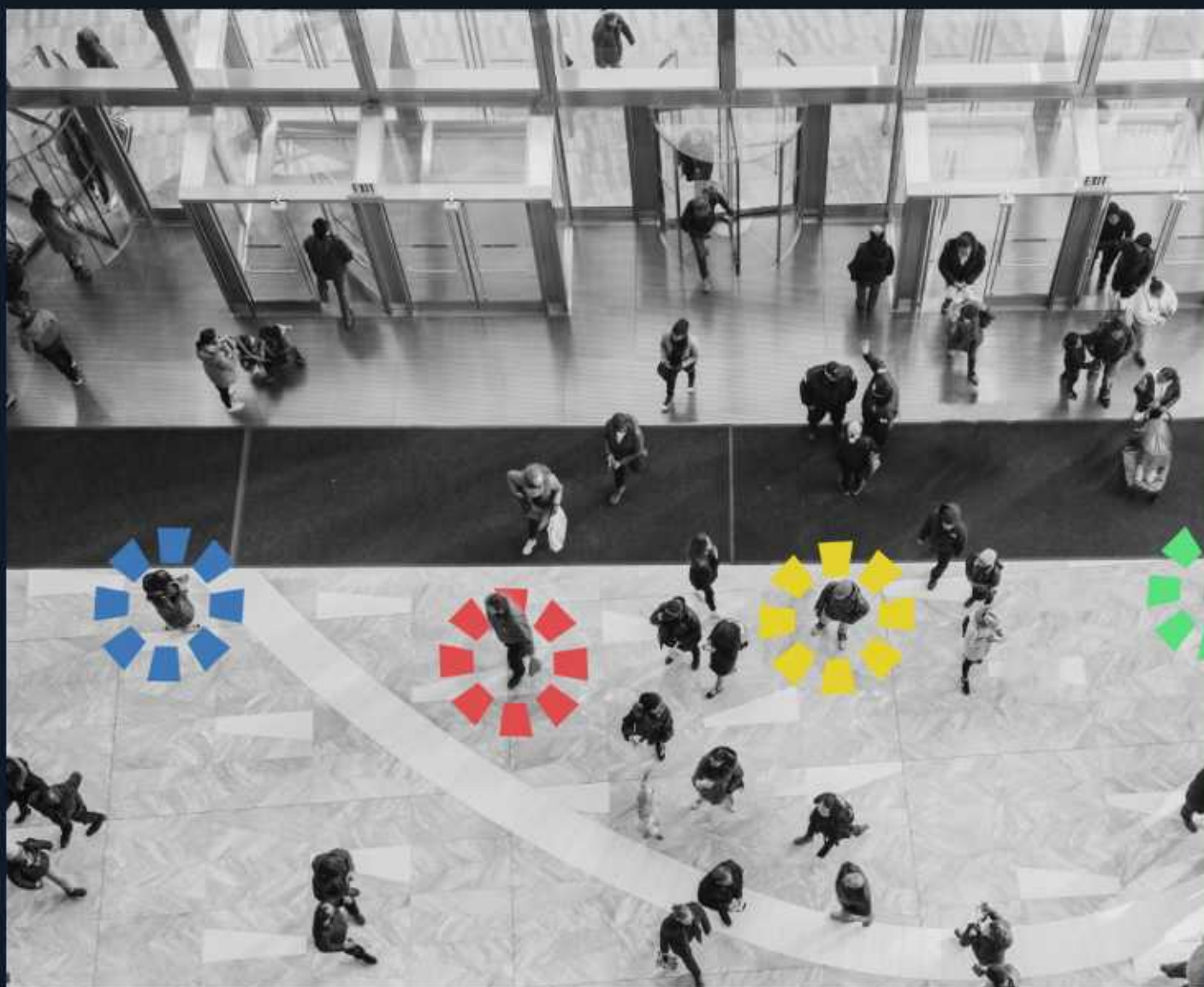


# Avalon

The overwatch system

AI supported intelligence solution for Military  
Departments, Intelligence Agencies, Law  
Enforcement Departments, and Private  
Security Companies





The next generation of security

# AVALON

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## T.I.T.A

In a strategic partnership with AR Live Systems (ARLS), Polience Ltd. and Deveryware, have been able to develop a fast and secure AI data analytics system, AVALON. In this International co-operation, ARLS provides the overall system with real-time face recognition software, GALAHAD, for more advanced security capabilities.

The hardware is custom made in the UK. It is a low cost, commercial off-the-shelf hardware, with minimal installation requirements. Importantly it can be easily integrated with existing security systems.



### **NDA 2021 Compliant - NSN 5895-99-615-8439 - NCAGE UINF7**

ARLS built Galahad adhering to the three fundamental elements of Trustworthy AI, that it must be lawful, ethical, and robust. ARLS gathered these elements and created a unique and compact solution for a wide range of use cases, ranging from small businesses to government bodies.

In use with Polience & Deveryware, the symbiotic relationship creates the most powerful tool for tracking and identification of persons of interest (POI). This can easily additionally include associates and patterns of behaviour using advanced AI. By creating a legal and ethical technology, we have been able to produce a security solution that meets the worlds most stringent security and privacy requirements and yet can still be the highest performing solution.

In partnership with the University of Queensland, Australia, these three companies have adhered to all applicable US, EU and UK Regulations in the development of Avalon to enable it to be awarded NATO certification.

Avalon has also been compliant with human rights and adheres to the legal requirements throughout the US, EU and UK through the development of a synthetic AI.

- **TRACE**
- **IDENTIFY**
- **TRACK**
- **ANALYSE**

[arlivesystems.com](http://arlivesystems.com)

# PRODUCT OVERVIEW

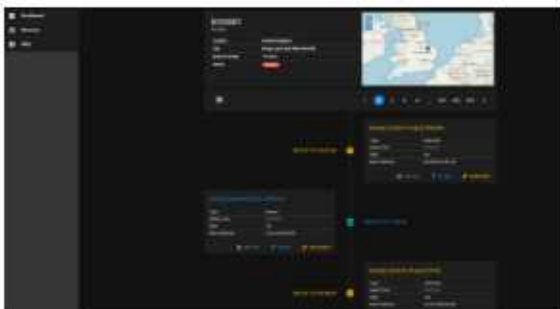
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The tool for Tracing, Identification, Tracking and Analysis (T.I.T.A)

- Associate unique metadata to identify and re-acquire the device
- Non-intrusive mass collection of data
- Passively scans mobile cellular, Wi-Fi and Bluetooth
- Understands locations and access points
- Understands the density of devices even if hidden.
- Processes data from incumbent networks
- Cross references mobile device for identification through face recognition
- Complete historical analysis of a person of interest
- Border protection, Incident patrol, Watchlist, Remote observation, AI analysis and alerting
- Extend borders with airlines, and overseas cooperation

## Example Scan

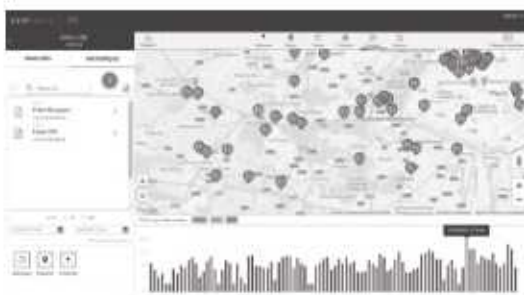
### TRACE



### IDENTIFY



### TRACK

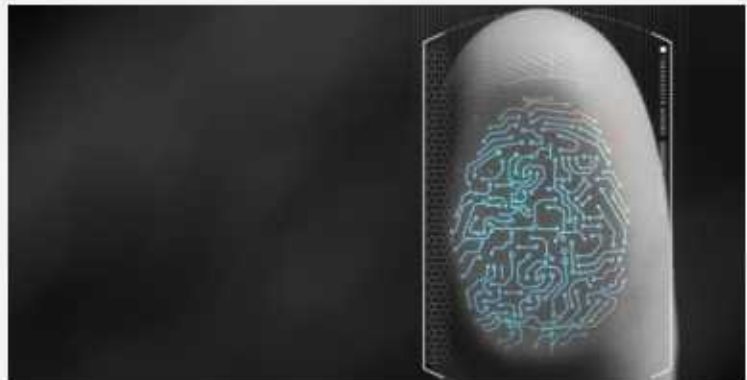


### ANALYSE



# ABOUT US

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## Who We Are

Avalon Systems is an integrated suite of three independent solutions brought to you by AR Live Systems .

ARLS delivers Galahad facial recognition with Polience's live tracking PreCog, Deveryware's analytical, historical, mobile phone services in support of the Avalon solution.

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## Company Facts



Satisfied Clients



Market leading technology



Government approved

## What We Do

Avalon is a real-time security and intelligence solution for governmental agencies, commercial entities and associated organisations. By leveraging artificial intelligence (AI) it provides the operator with actionable information, so they can make an informed decision to help identify crime and combat terrorism. Advanced intelligence, enables maintenance of high security standards to environments such as borders, key infrastructures, people and cities.

Avalon enables our customers to protect themselves, through analytics and it can expand the scope to include the requirements that derive from social distancing and resourcing information.

Avalon can review historic data and extrapolate, giving the user the tools to investigate and report so that our customers can truly protect themselves from potential harmful intentent.

[arlivesystems.com](http://arlivesystems.com)

# AVALON SOLUTIONS

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## Cost efficient hardware

The hardware requirements for our system can be tailored to our customer's requirements. Whether it's a small business or government department.



## Cloud analytics

Our cloud based solutions enable the greatest possible flexibility, future-proofing, data sharing, collaborative environment for all our customers all over the world. Supported by AR Live Systems Ltd.



## Historical analysis

Historical analysis from legacy systems allows the user to obtain patterns and or information that can identify hostile intent or conspirators support from within groups or areas.



## API access

Our mobile App integrates with the cloud to give full real-time and historical data. Our API access enables customers to connect via their own application, which enables alerting and enrolling as well.



## Real-time detection and response

Avalon offers a real time detection and alert tool which uses multiple detection methods designed to adapt to the unique requirements of the customer.

# POLIENCE

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## Who We Are

Polience is formulated by hardware and software experts with experience in telecommunications and analytical data. The telecommunications background Polience have been able to create a form of a footprint that has the ability to identify a mobile phone and any other device that uses cellular communications in the form of WiFi, Bluetooth and cell tower data.

This is completed by analysing the transmitted data from such a device and understanding the required communications links used in modern-day network systems.



### Polience unit:

- dust resistant
- light weight
- dimensions: 22 cm L x 6 cm H x 13 cm D
- Easy, plug-and-play install
- Low power usage (can run on batteries)

Polience identifies the mobile device through its extensive use of passive recognition techniques which can then be tracked internationally. Giving the system a global capability. Being able to identify individuals that are directly connected to the user is where our association with ARLS comes in to it's own.

## Polience

The solution works on a simple principle. Every mobile phone emits valuable data through various signals, while it's reviewing previous connections, searching for connections or is connected to an access point. Polience device creates a zone of detection for Cell Bluetooth and WiFi-enabled devices.

The Polience unit is constantly searching for devices (users) in the zone created by the unit, collecting the data emitted by devices and sending it to the cloud for analysis and review. In a live environment accessible through the internet in a browser or mobile device.

## Potencional use cases:

- suicide prevention
- traffic analysis
- identifying unauthorized cell phone usage in prisons and jails
- independent alarm supplement
- pattern analysis and pattern development

# AR LIVE SYSTEMS

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## Who We Are?

Our Company was formed in 2017 by professionals with extensive backgrounds in security, programming, and artificial intelligence. Our objective was then and is now to create a platform for the advancement of Artificial Intelligence and Augmented Reality. As an advanced AI and AR research and development company, we have been able to achieve many firsts in both fields and quite rightly AR Live Systems is considered to be a leader in AR and AI in the US, EU, and the UK.



Our team of engineers, programmers, designers, have worked tirelessly to bring AR Live Systems to the forefront of the industry meanwhile focusing on addressing the needs of the customers. With our innovative and insightful technology, we strive to enhance the users' experience. We are committed to producing products that are non-discriminatory with equal high accuracy of results for all.

### **NATO CAGE/NCAGE UINF7**

#### ARLS Edge unit:

- twin network ports multi-camera support allowing the user to connect to an intranet and connect to the INTERNET simultaneously while maintaining isolation for the intranet, one-way communications.
- metal case (for use with magnetic holder)
- ARLS edge unit dimensions: 11 cm L x 4 cm H x 9 cm D
- Easy, plug-and-play install

ARLS Edge Unit reduce your overall IT costs by distributing computing to the edge and reduces bandwidth requirements by sending smaller, encrypted bites of data.



[arlivesystems.com](http://arlivesystems.com)

#### Galahad

In partnership with the University of Queensland, Australia, ARLS used billions of synthetic faces to provide a deep-learning and training environment for the our AI algorithms. Which, the University of Queensland's Ethics Department certified it as ethical.

The efforts to make this system robust include protecting the data, both at rest and in transit, through the use of AES 256 encryption, protecting the privacy of individuals with self deleting data that does not meet the criteria for retention, auditable logging for accountability, consistent testing.

We ensure Trustworthy AI in so far as all the developers are security cleared and have been trained in "Security Industry Authority" SIA CCTV operator requirement and comply with UK and EU, General Data Protection Regulations (GDPR) and with the California Consumer Protection Act of 2020 requirements while creating code within the AI arena.



# DEVERYWARE

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## Who We Are

Commitment is the watchword that drives Deveryware, an SME that has become a group. Since its creation in 2003, Deveryware has been working with safety and security professionals to improve and facilitate the performance of their tasks for the security of people and property.

Faced with the increasing demand for security in a world with multiple and multifaceted threats, Deveryware aims to help law enforcement in their missions and also to provide citizens with a range of services to facilitate the digital transformation of their daily lives. Looking towards a safer future, we mobilize all our resources every day with a firm commitment to the security of all.



## Geohub

Deveryware has built a powerful, extendable-capacity real-time geolocation system, all the infrastructure of which is controlled in private cloud mode: the Geohub.

It hosts all the necessary servers, databases and communication network interfaces. Data is collected, stored (if required), processed and disseminated under the total control of Deveryware in full compliance with the laws and regulations on the protection of personal data. It can be audited at any time by the relevant authorities. Quality of service and business continuity is guaranteed through two separate and synchronised secure and fully redundant hosting centres.

[deveryware.com](http://deveryware.com)

# Superior solutions Innovative security

Type	Mac Address	Device	Range	Distance	Currently	Previous 1	Previous 2	Previous 3
				Metres	Connected to			
D	99a20b 3f5b38			-71	0-2			
D	509f08 b15956			-33	0-2			
C	8a1e84 c068e7	Apple		-42	0-2	039f2 77080e	PLS PARAYE	RNT JIO
D	ff0c8b b13c9d			-66	2-5			
D	e0f110 5d4e1f			-36	0-2			
C	dc729d e603eb	HUAWEI		-33	4-10	039f2 77080e		
D	e68196 269474	Samsung		-72	0-2			
D	9fa7f0 54e43b			-79	2-5			
D	00c2e9 7cd479	Apple		-4	2-2	da9db 8fdd5	PRCOURT12GHz	

## Contact Us



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