

An aerial night view of a city skyline, likely Shanghai, with a blue overlay. The image shows a dense cluster of skyscrapers and buildings, with the Oriental Pearl Tower prominently visible in the center. The city lights are visible, and a river or waterway is seen in the foreground. The overall tone is futuristic and technological.

# Connecting People & Technology

Cruatech is a software engineering company that builds technology for Physical Security systems, Energy Management, IT & Business Intelligence systems.

# FULL LIFECYCLE AND OPERATIONS SUPPORT

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## ENGINEERING SERVICES



## APPLICATION DEVELOPMENT



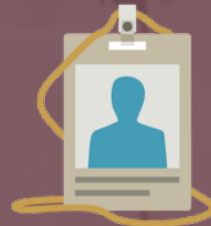
## PROJECT MANAGEMENT



## SYSTEM TRAINING



## ON-SITE DEPLOYMENT



## TECHNICAL SUPPORT



# WHO WE WORK WITH

## CUSTOMERS



Cruatech's works with global enterprise customers from the Government, Aerospace & Defence, Finance, Pharma, Oil and Gas verticals. In the security space we build and manage systems with 100k+ sensors.

## INTEGRATORS



Cruatech works with integrators to offer integration and customisation. Most specified products will deliver 70-80% of the requirements requested by a customer. Cruatech helps build the integration and customisation which facilitates the delivery of 100% of the end users requirements.

## MANUFACTURERS



Cruatech allows manufacturers to unlock new markets by building integration into head end solutions or by integrating hardware or edge devices to allow our customers product to gain a competitive advantage in the market place.

## CRUATECH'S CLIENTS



Mater Hospital Dublin



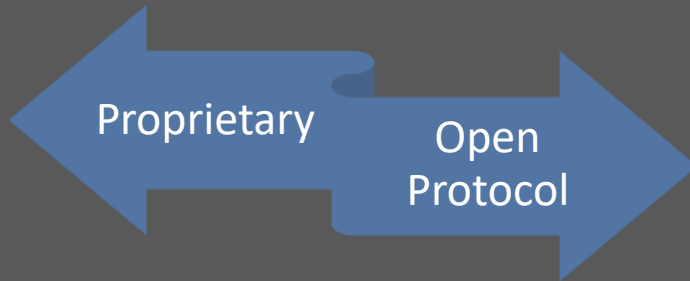
# Why Open standards?

RESTful and other open protocols allow developers to standardise security system communications and integration. While proprietary integration will still be required, a lot of the work can now be handled in a standardised way, this saves time and money and reduces costs of having to do multiple integrations to achieve the same goal.

- Additional Engineering cost
- Different API's libraries.
- Overhead in retaining knowledge
- Difficult deployment
- Subject to change

But:

Can do complex deeper integration



- One time development cost
- Improved compatibility
- Less training involved
- Easy configuration and deployment

But:

- Limited to CRUD operations
- Sometimes misses system specific functionality.

# What is PLAI?

- PLAI stands for physical Logical Access Interoperability.
- Cruatech are an associate member of PSIA and our leadership team are closely involved in the working group assigned to deliver the roadmap for the technical concepts around PLAI.
- Cruatech's provides a service for Physical Security vendors and manufacturers to develop products based on the PSIA standards.



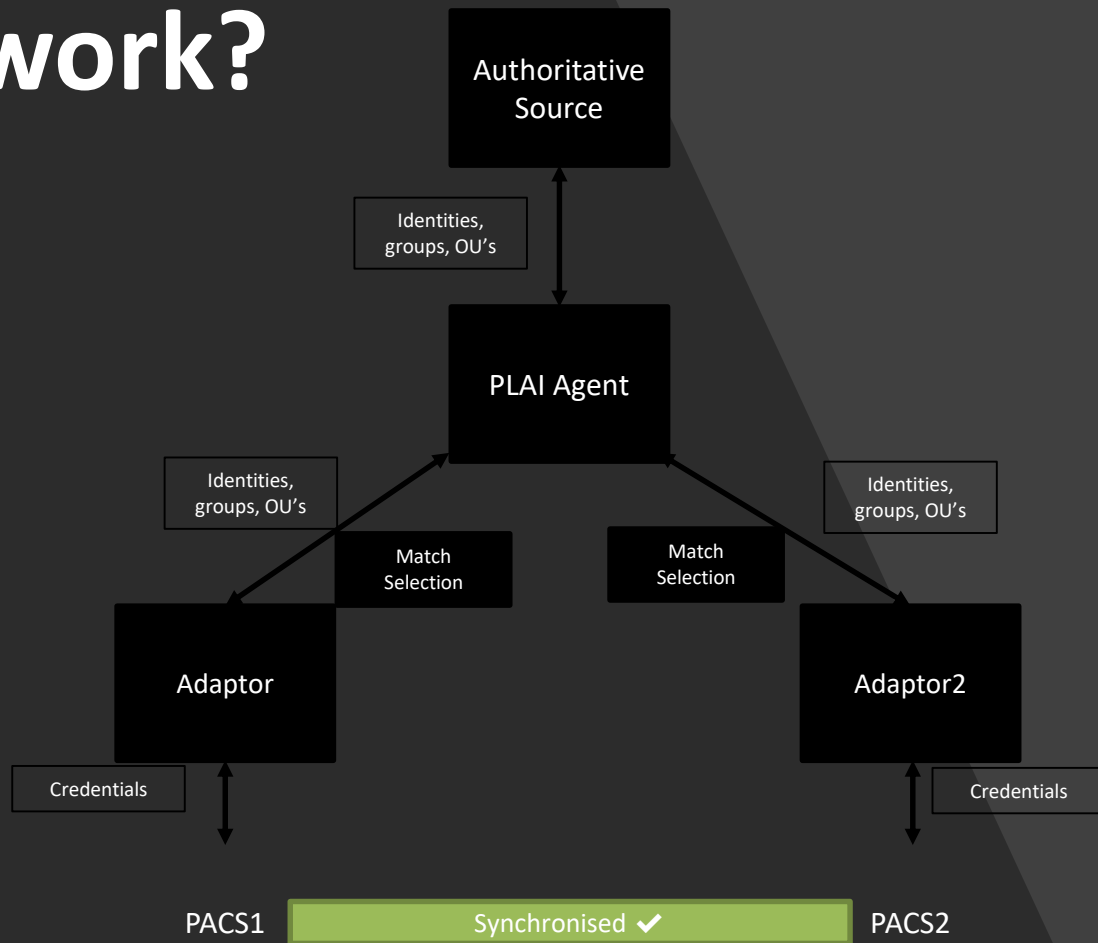
# What is PLAI Agent?

- The PLAI Agent system provides information exchange between individual Access control systems.
- The PLAI Agent's main function is to ensure the logical and physical access privileges associated with an employee's role are always synchronized. This enables a company to ensure a person is physically present before permitting access to databases or applications.
- the PLAI agent enables automated inter-PACS interoperability for the first time.
- Users can reduce multiple access cards as the inter-PACS interoperability automates the process of enabling an access card associated in one vendor's PACS to be used at entry points associated with a different PACS system provided the card readers are the same.



# How does PLAI work?

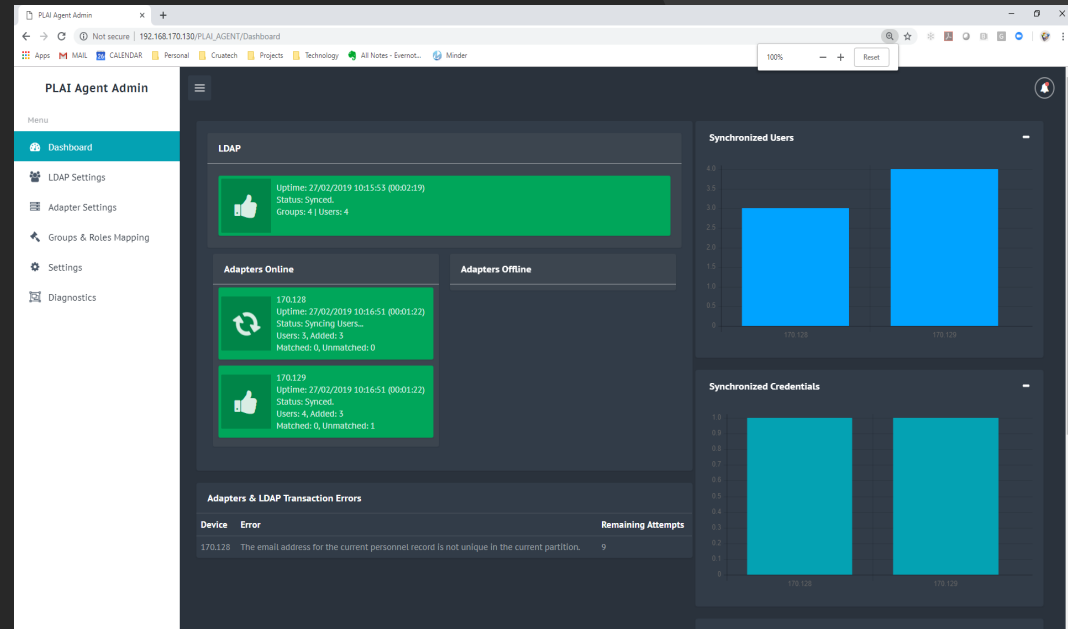
- The PLAI profile outlines a platform agnostic RESTful API, which can be developed in any language.
- The API needs to be exposed via a web service over HTTPS.
- The mapping of EDS or in most cases LDAP entities such as users, groups, organizational units, containers mapped into the access control space.
- the PLAI agent is “in charge” of the PACS that are registered against it.
- The Adapter must expose a RESTful web service with specific interfaces and behavior in order to be compatible with the PLAI agent.



# Architecture and Installation considerations

- Responsive Web front End
- Runs on windows IIS Service
- East to use single installer and documentation
- Supports Active directory authentication
- Adapter Setup
- Extensive Sync process settings
- Unmatched credential identification

*For detailed installation and architecture information please review the installation guide*





# User Interface Overview of UI

The screenshot displays the PLAI Agent Admin Realtime Dashboard. The interface includes a left-hand navigation menu with options like Dashboard, LDAP Settings, Adapter Settings, Groups & Roles Mapping, Settings, and Diagnostics. The main content area is divided into several sections:

- LDAP Sync Status:** A green bar showing 'Uptime: 27/02/2019 10:15:53 (00:02:19)', 'Status: Synced.', and 'Groups: 4 | Users: 4'.
- Adapter Sync Status:** Two cards for adapters 170.128 and 170.129. Adapter 170.128 is 'Syncing Users...' with 3 users added and 0 matched. Adapter 170.129 is 'Synced' with 4 users added and 3 matched.
- Synchronized Users:** A bar chart showing 3 users for 170.128 and 4 users for 170.129.
- Synchronized Credentials:** A bar chart showing 1.0 credential for both 170.128 and 170.129.
- Error Log summary:** A table with columns 'Device', 'Error', and 'Remaining Attempts'. It shows an error for device 170.128: 'The email address for the current personnel record is not unique in the current partition.' with 9 remaining attempts.

Number of Synchronised users

Number of Synchronised Credentials

# Synchronization Process and Personnel Matching

- Connect PLAI Agent to LDAP
- Propagate Users, Groups and Roles to Agent.
- Add all Users, Groups and Roles to PACS via adapter.
- Start synchronisation
- Propagate all matched users based on first name, last name and email address.
- identify and manage unmatched users

Partially Matched Users

Show  entries Search:

User's Name	Adapter's Display ID	Adapter's GUID	Actions
White,John	7521	[06f97186-5a84-4d7e-8b14-341437874c16]	<a href="#">Match</a>
White,John	7522	[02fae22b-5e37-4075-9720-805d84c12745]	<a href="#">Match</a>
White,John	7523	[66f29222-51b0-449f-a1cd-5c5babe12d8f]	<a href="#">Match</a>
User's Name	Adapter's Display ID	Adapter's GUID	Actions

Showing 1 to 3 of 3 entries Previous **1** Next

Unmatched Users

Show  entries Search:

User's Name	User's LDAP GUID	Actions
John White	{05761579-da02-4bca-811b-f1fc6ae450b2}	<a href="#">Match User</a>
User's Name	User's LDAP GUID	Actions

Showing 1 to 1 of 1 entries Previous **1** Next



## How can I get PLAI?

Call Sales on +353 17007579

Or email [sales@cruatech.com](mailto:sales@cruatech.com)