iSA Web Application

Workload Self-Assessment System

iSA Application

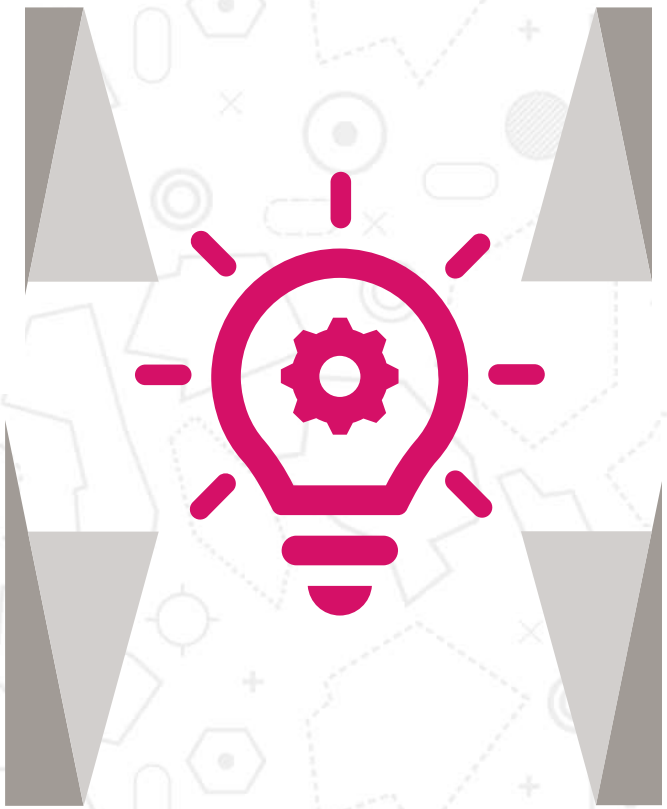
Background

The Instantaneous Self Assessment (ISA) metric

WORKLOAD ASSESSMENT

Workload assessment is essential when introducing new technologies.

Optimum workload is a key enabler of increasing capacity through achieving peak human performance.



BACK IN THE DAY

Traditionally, an analyst would request a workload rating either verbally, or using flashing lights on a workload scale display.

However, these methods are intrusive and distractive. Also, it is not practical to assign one analyst per user for parallel session.

WHAT'S ISA?

ISA was first developed for use in Human-In-The-Loop Real Time Simulations for ATC research and development simulations.

The purpose of the ISA technique is to continually ask a user the same question (e.g. "How do you rate your workload?") and get their opinions over time on a scale.

THINK'S iSA

Our iSA is a portable, electronic version of the commonly used ISA.

Using this, you will get an indication of the effect of the test conditions on the user's perceived workload.

Think

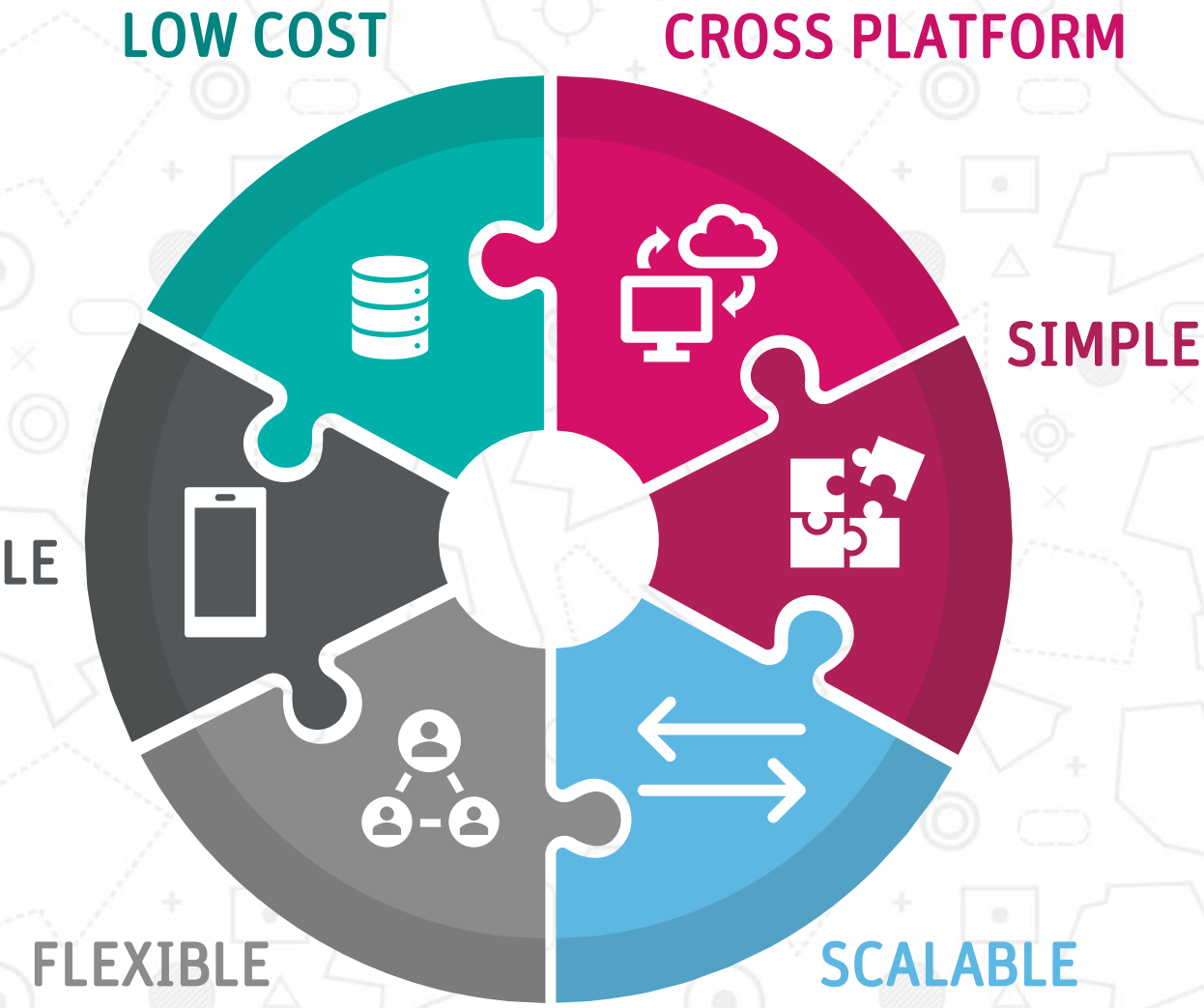
Think's iSA Web Application

Why did we create iSA?

We made iSA because many simulators and operations rooms don't have workload assessment systems. In addition, it can be:

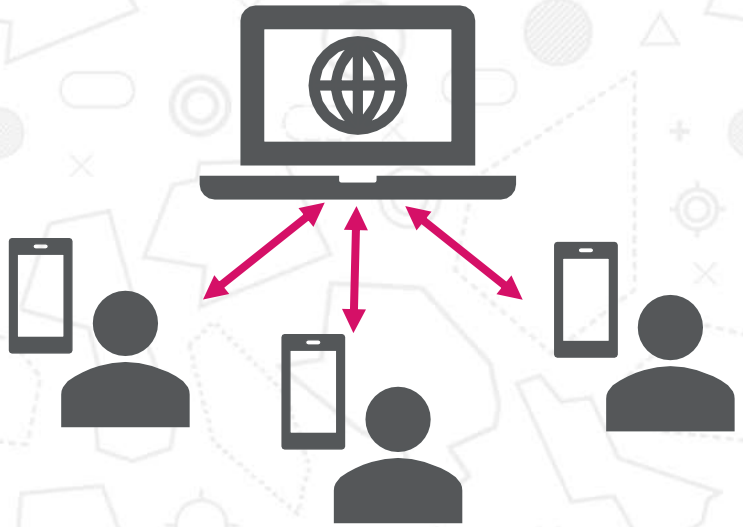
- difficult to install them in safety critical ops rooms
- expensive to install them in simulators

So... based on Think's experience in Human Factors, simulation and analysis tools it seemed natural for us to develop an innovative, low-cost solution.



Think's iSA Web Application

- iSA is a web-based application which connects an admin interface to any number of portable input devices.
- Everything is synchronised and controlled from the admin portal which we will grant you a licence for.



Requirements:

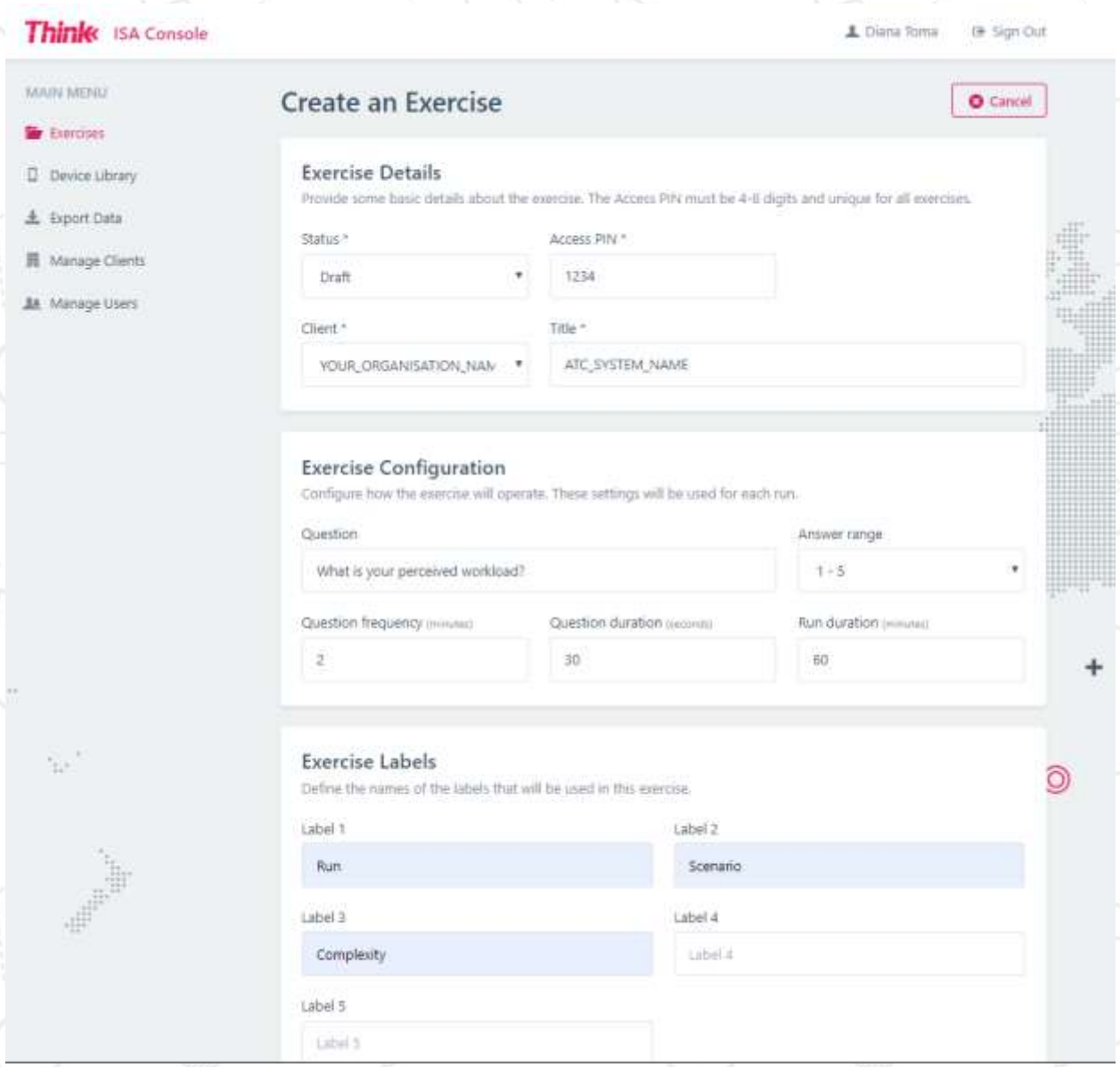
- Wi-fi or 4G data connection.
- Any user laptop (no minimum specification).
- Any browser (Mozilla Firefox, Chrome, etc.).
- Any input portable device (iPhone, iPad, kindle, Android Phone, etc).

Admin Console

The client user interface can be accessed on any web-enabled device, although Think recommend that a PC is used for the set-up process.

What can you do with it?

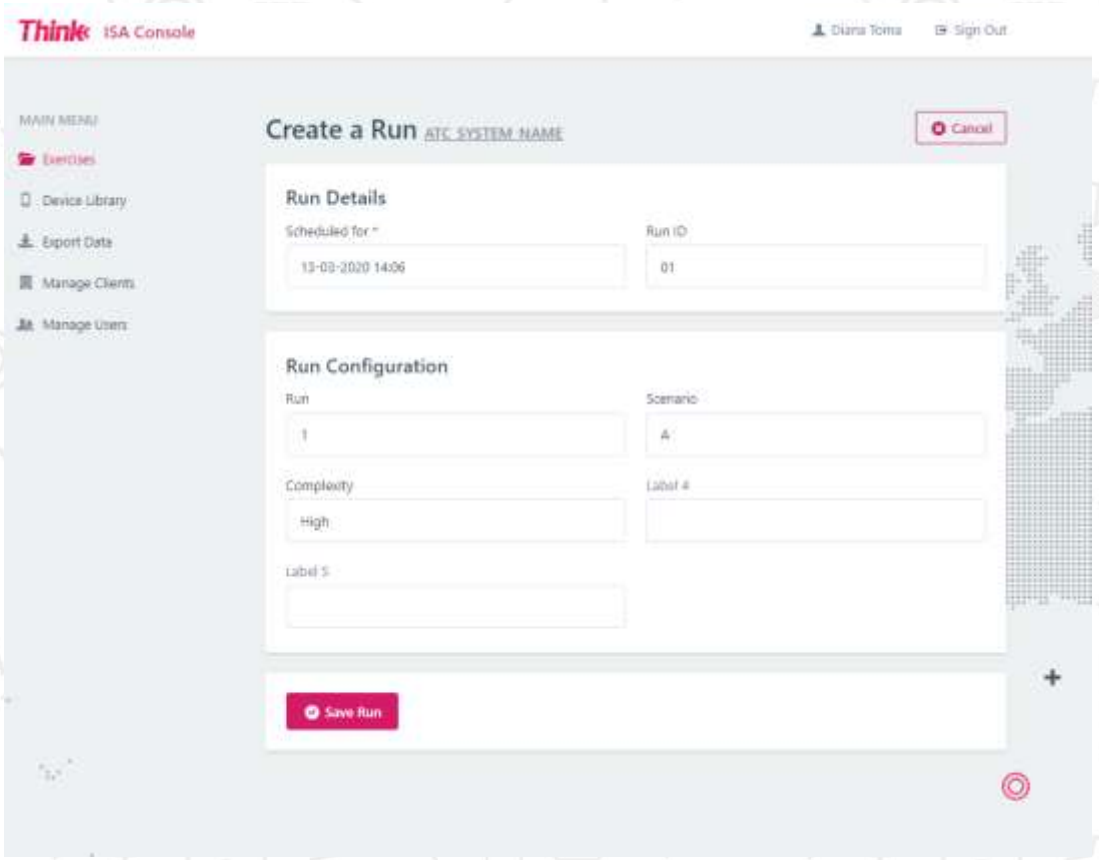
- Pre-plan multiple exercise configurations and run configurations.
- Define an unlimited number of participants and their roles.
- Configure workload assessment questions.



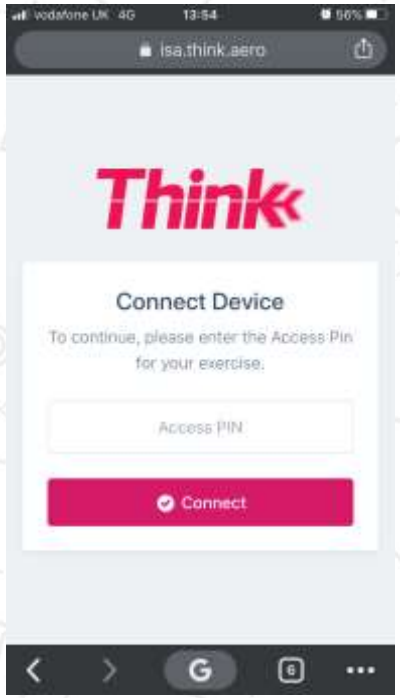
iSA Interface

- Simplicity and ease of use are key drivers of this system and no training is necessary before use. However, Think is able to offer full installations, training and support if required.

- Flexibility to tailor the assessment to each client's needs is offered upon creation of exercises and individual runs.

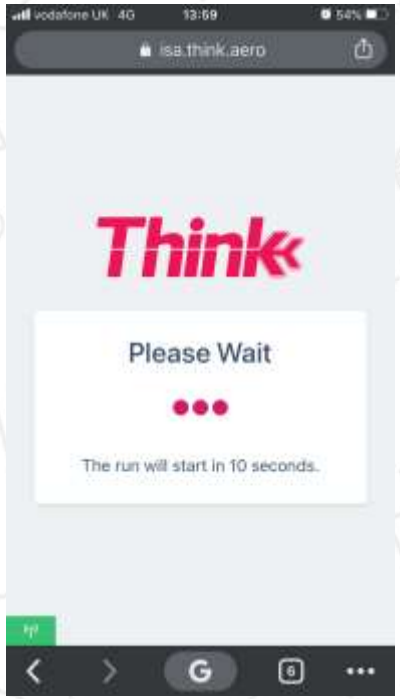


User view



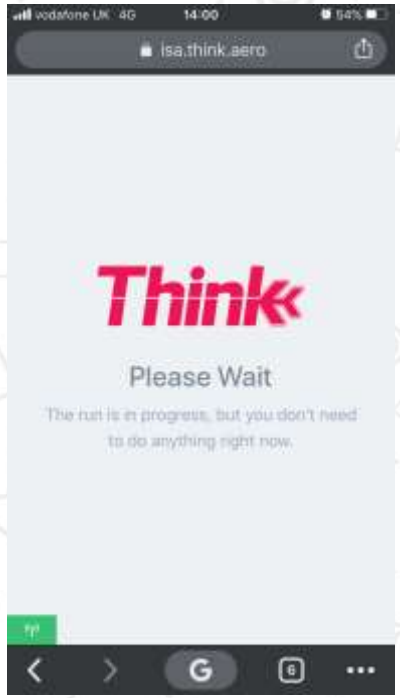
Following a given link, a user will insert the Access Pin you set up when you create the exercise.

User will then identify themselves based on your device set-up.



All done – user waiting for the question to pop-up for the first time.

Question appears and user will be able to select their perceived workload.



Upon selecting the appropriate answer, this screen will appear before the same question is displayed again based on the interval you selected.

Data Collection

- After the run or exercise has finished, data collected is stored in your user account.
- We can log many parameters, but depending on your needs, you can decide and collect just what you need.
- You can export the data into Excel for easy analysis.

Run ID	Run	Scenario	Traffic Sample	Label 4	Label 5	Due At UTC	Due At Duration	Displayed At UTC	Displayed At Duration	Answer (1-5)	Response Time	Device Ref	Device Label
test201	Run1	Scenario 2	High			11-03-2020 15:06:00	00:0:0	11-03-2020 15:06:03	00:0:3	3	2.079	ATCO2	0058
test201	Run1	Scenario 2	High			11-03-2020 15:07:00	00:1:0	11-03-2020 15:07:03	00:1:3	4	2.779	ATCO2	0058
test201	Run1	Scenario 2	High			11-03-2020 15:08:00	00:2:0	11-03-2020 15:08:03	00:2:3	5	3.017	ATCO2	0058
test201	Run1	Scenario 2	High			11-03-2020 15:09:00	00:3:0	11-03-2020 15:09:03	00:3:3	4	5.002	ATCO2	0058
test201	Run1	Scenario 2	High			11-03-2020 15:09:00	00:3:0	11-03-2020 15:09:04	00:3:4	5	3.467	ATCO3	289547
test201	Run1	Scenario 2	High			11-03-2020 15:10:00	00:4:0	11-03-2020 15:10:03	00:4:3	4	1.863	ATCO2	0058
test201	Run1	Scenario 2	High			11-03-2020 15:10:00	00:4:0	11-03-2020 15:10:05	00:4:5	4	12.719	ATCO3	289547

License Packages

Licencing packages

Think recommend purchasing a Client User Licence periods of 1 or more months. As a minimum for a 2-week simulation we recommend a 1-month licence. This will allow you sufficient time to configure the exercises and conduct the simulations.

The data will be available for analysis and download for a further 6 months following the end of your subscription. Following that the data will be archived by Think and retained for a further 6 months before being securely deleted.

The following Licence options are available:

- Software Licence only;
- Software Licence with hardware loan and set-up;
- Software Licence with supplied hardware and set-up.

Licencing packages

Licence with supplied hardware and set-up

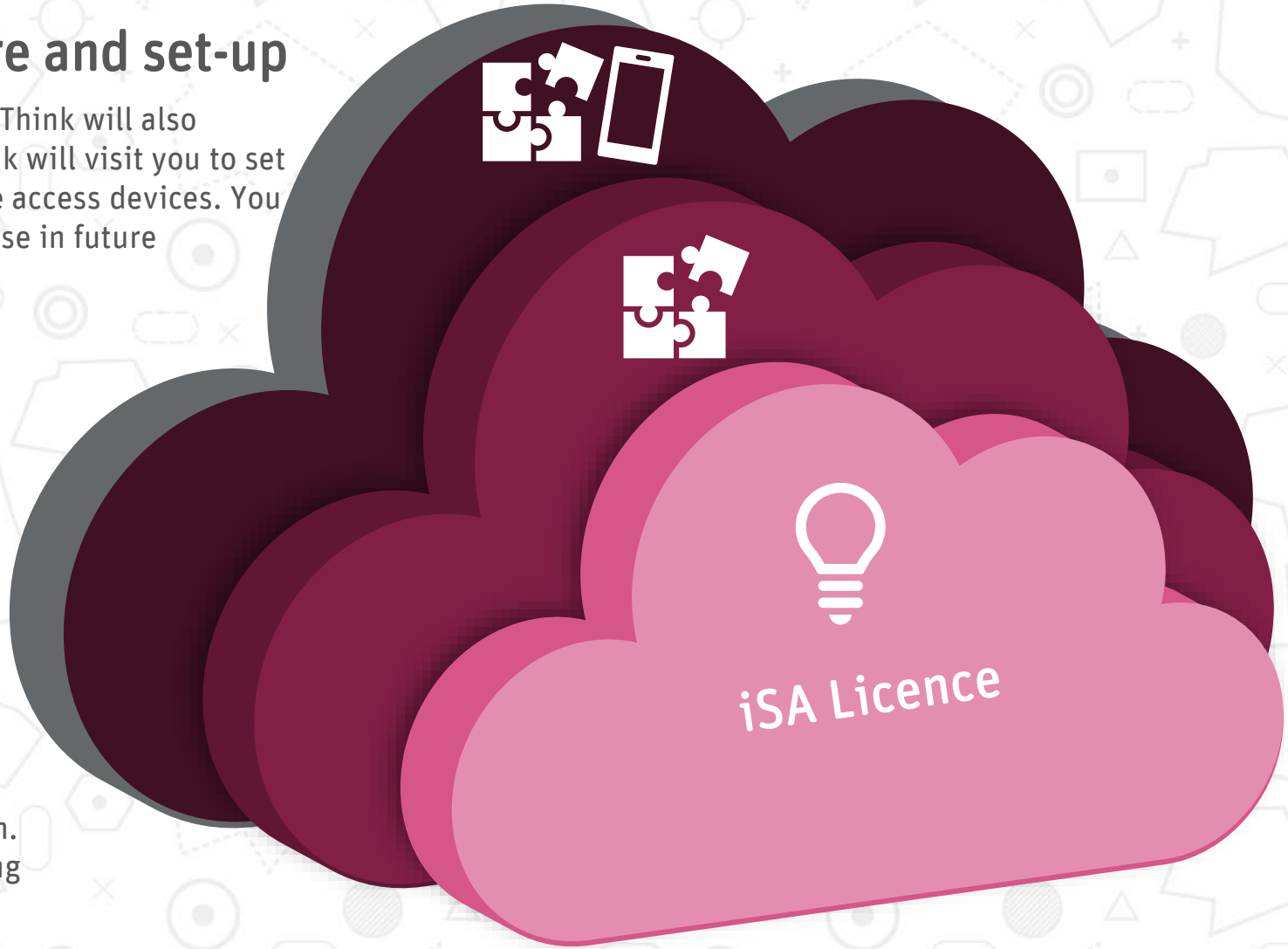
Think will provide the Client Licence for a period of 1 month. Think will also purchase, on your behalf, suitable web-enabled devices. Think will visit you to set up the Client User access and exercise configurations and the access devices. You will keep the purchased devices at the end of the period for use in future simulations.

Licence with loan-hardware and set-up

Think will provide the Client Licence for a period of 1 month. Think will also loan you suitable web-enabled devices for the 1-month Licence period. Think will visit you to set up the Client User access and exercise configurations and the access devices. You will return the access devices at the end of the 1-month period.

Licence only

Think will provide the Client Licence for a period of 1 month. You will be responsible for the exercise set-up and providing the web-enabled devices to access the system.



Think

Trajectory Based Operations

Remote and Digital Tower

Wake and Time Based Separation

Airport CDM

Performance Based Navigation

Flexible Use of Airspace

Unmanned Aerial Systems

Runway Optimisation

Virtual Centre

Enterprise and Airspace Architecture

Airspace Change

ATCO Team Organisation & Training

Think
ATM & Airports Consultancy

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