



**A short paper to describe the thinking driving the
design and delivery of the latest iteration of
Hydra**

Hydra-Presence

"Being there whilst remaining here"

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Hydra is an established methodology for the delivery of critical incident decision making scenarios please see [HydraFoundation](https://www.hydrafoundation.org/) website for information on the approach. The delivery of simulation exercises has been evolving for over 30 years and traditional Hydra methodology utilises a fixed Hydra suite comprising a number of syndicate rooms, a plenary room and a control room. This standard installation is available in over 80 locations in the UK and worldwide.

Fig. 1 Hydra Suite – Physical – Gold Standard



Hydra Presence

To enable remote access to the Hydra methodologies a new system called Hydra Presence has been developed. Here the delegates can engage with the full range of Hydra methodologies but do so without the requirement to be co-located at a Hydra suite. This paper will take the perspectives of a Hydra delegate and a Hydra Facilitator to describe this new approach. Once the concepts are established, the paper will explore the potential for a hybrid methodology whereby Hydra 'Classic' can be used alongside Hydra Presence allowing remote delegates to join a physical Hydra event.

Hydra Delegate Perspective

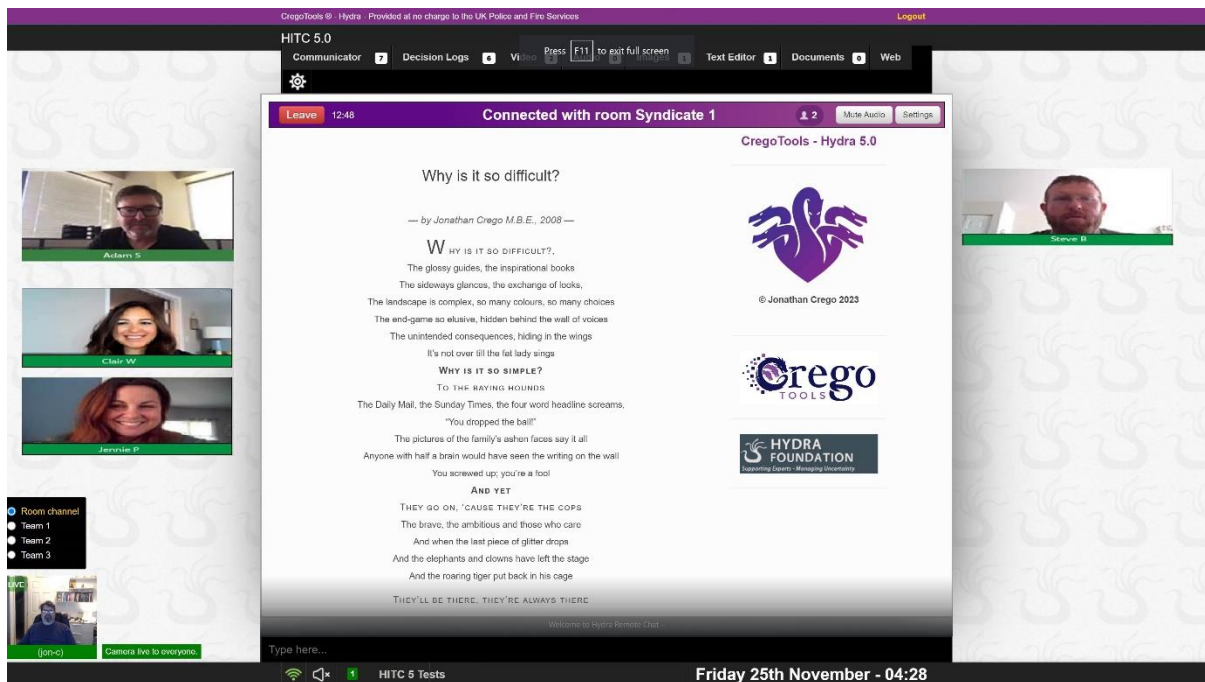


Fig. 2 Delegate interface

The delegate is provided with a log-on code which is generated by the system and determines which syndicate room they are assigned to. Hydra Presence is accessed through a web browser on any computer or through a discrete app on a secure computer. After loading, the delegate will be presented with the Hydra interface above.

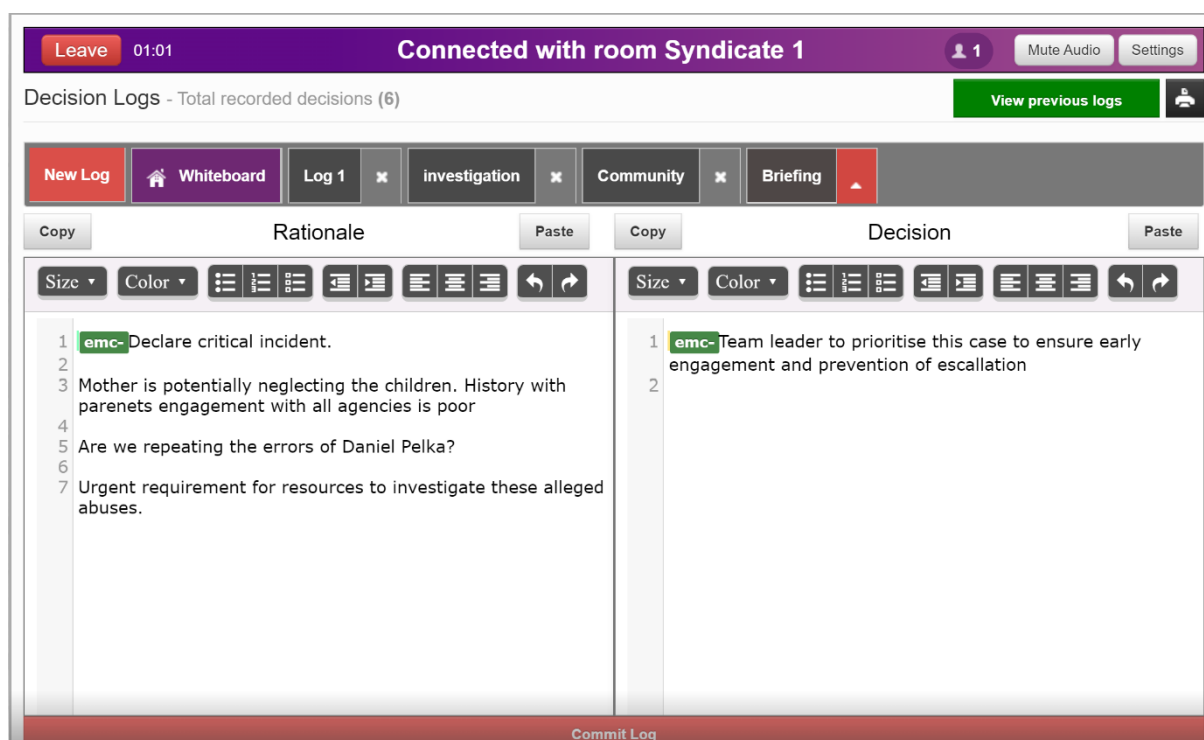
This interface is identical to the interface used in a traditional Hydra suite syndicate room and all courses previously developed in Hydra are available in Hydra Presence.

When the delegates are sent to their assigned syndicate rooms, they are able to 'meet' with other participants and discuss the unfolding incident. The interface enables free discussion between all with no requirement for taking turns to talk. In addition, each syndicate has 4 talk groups where delegates can go off and have discussions about discrete elements of the incident and then meet up again on the room channel to update each other on progress. By this approach more than one component of the incident can be managed simultaneously by the group. When delegates choose a room channel, they join a sub-syndicate group and only see delegates who are in that group.

To support this multi-dimensional approach to discussion and decision recording a new decision log has been incorporated into Hydra Presence.

Collaborative Logs

There are differences in the shared simulation experience between remote and co-located exercises. Without careful consideration of 'presence' i.e., 'being there', group interaction in solving problems and achieving tasks can lose cohesion, belonging and the unique feeling of immersion that the Hydra system generates. The group dynamics incorporated in a physical single-place syndicate room have been evolving and carefully considered for over 30 years of Hydra methodology. The new Hydra Presence design has focussed on trying to recreate these dynamics. Care has been given to the construction of an interface that allows remote delegates to see and discuss in a natural way, without interruption or orchestration. New methods of audio management and video streaming have been incorporated into the new system. It became clear that the recreation of a shared screen or group view of the problem would become a necessary component in attempting to replicate the collective view for remote syndicate members.

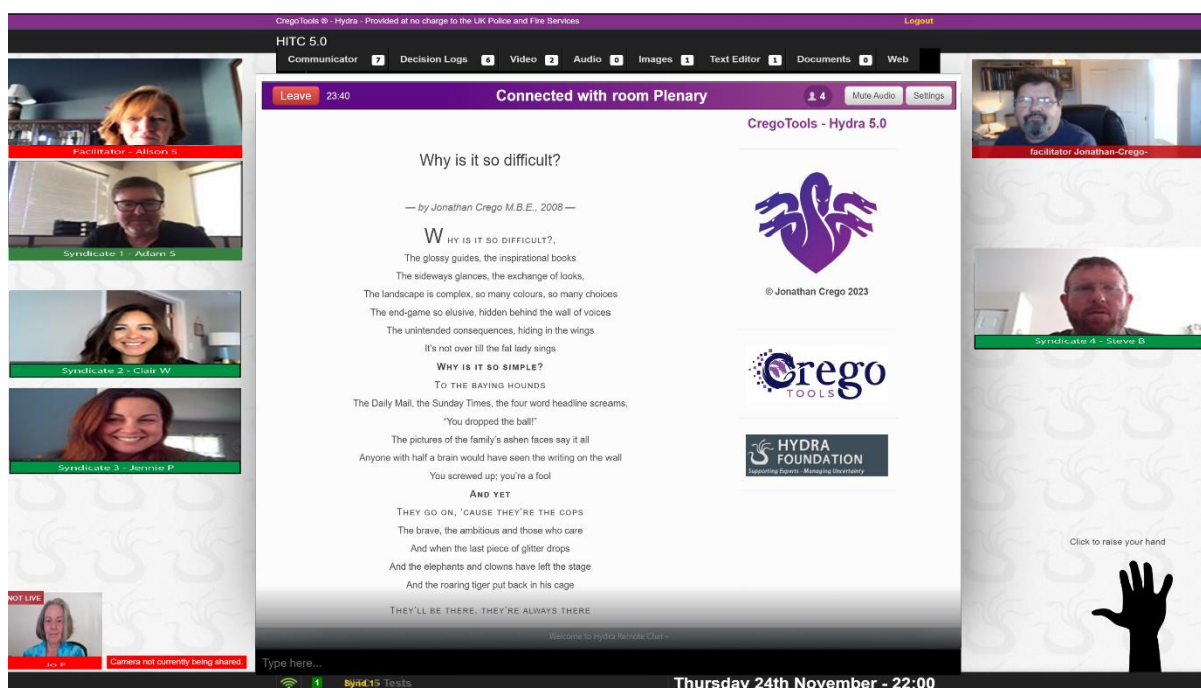


Part of this solution has been the creation of a collaborative decision log. In the physical suite syndicate room, the participants are able to collectively view the construction of a decision log, attempting as a group, to reflect on and articulate their discussions. As the log is constructed the words used become modified until there is agreement and shared understanding. It was essential that where delegates were joining from a remote location a shared view of the log needed to be created. The screenshot above is the collaborative log where all remote syndicate members can collectively construct, modify, and develop text to support the group discussions. There are tabs where multiple logs can be constructed simultaneously. These tabs used with the room audio channels enables simultaneous construction of logs and general discussion and group agreement on their content.

Plenary Discussions

In Hydra 'Classic' from time to time, delegates from all syndicate rooms, are called to meet in a plenary room to discuss and contrast their decision making and deliberations. These learning discussions are led by a facilitator or more than one facilitator, and a subject matter expert. This key component of Hydra needed to be replicated in the remote methodology.

To achieve this and to avoid the pitfalls of other remote meeting software (where a sea of faces are all present and cross discussion is difficult), an invited plenary system was developed. The screen below shows the two facilitators at the top left and right of the screen. The invited remote delegates are shown this view and the facilitator can at all times invite any representative from any syndicate to present their thinking, evidenced by their decision log. In the screen below a delegate from each of the four syndicate groups has been invited to be shown to all during the plenary.



Each syndicate also has a text chat capability, enabling all syndicate members to support their team member chosen to present in plenary.

All existing functionality of Hydra Classic, i.e., the viewing of documents, video feeds, audio feeds, pictures are incorporated in Hydra Presence.

Hybrid Hydra Presence working with Hydra Classic

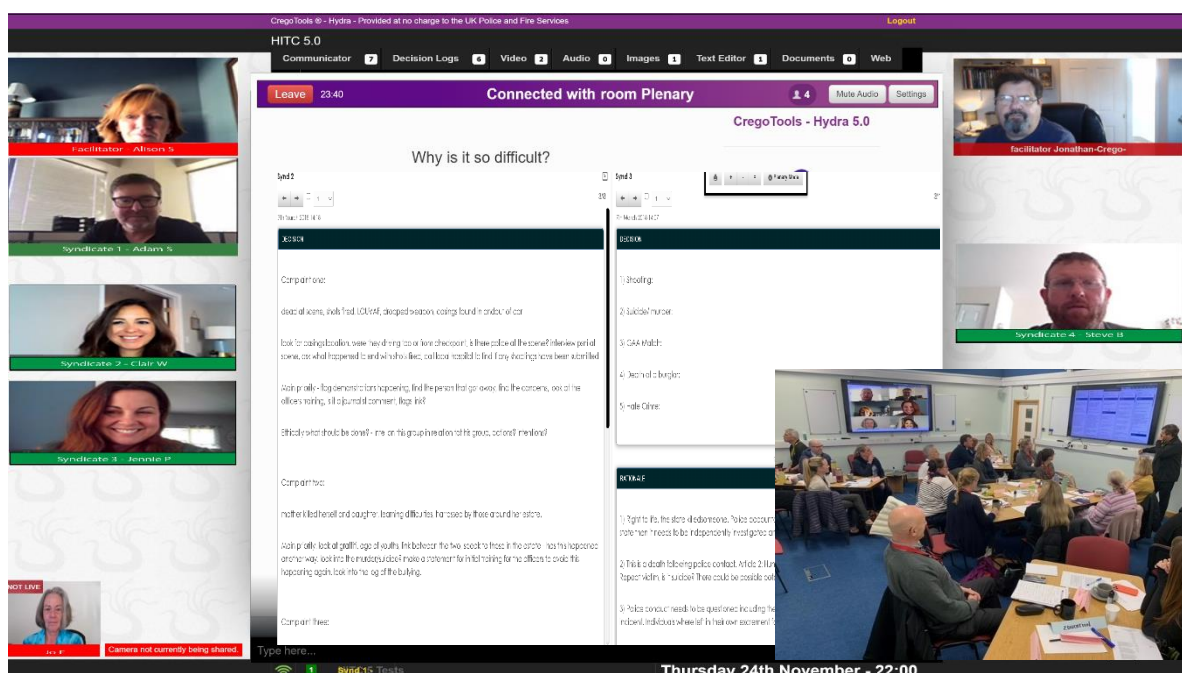
To take the methodologies to the next level we have designed Hybrid Hydra Presence. This concept is difficult to explain on paper, but in outline, it attempts to enable a virtual syndicate to join a classic Hydra exercise and become another syndicate team, seamlessly. To explain this we shall consider the viewpoints from delegates who are attending the physical Hydra Suite, the view point of the Facilitators and finally the viewpoints of delegates who are joining remotely.

Viewpoints from attending delegates and virtual delegates

A delegate attending a physical Hydra suite will experience Hydra by sitting in a room with fellow syndicate members and attending plenary sessions led by an in-the-room facilitator. Consequently their syndicate room experience is unchanged. When they attend the plenary session they will see their fellow syndicate teams in the room and the facilitator at the front of the classroom. To bring the remote syndicate into the room, one projection screen will project a tiled wall of the virtual syndicate members as shown in the diagram below.



On the other screen the decision logs are displayed for the participants attending the event and remote syndicate members see the projected decision logs presented in the middle panel of their screens so they can be read with ease. Additionally, a panel displaying the facilitator and attending



delegates can be seen by the remote delegates, allowing them to engage directly into the plenary, access their own decision logs and chat with fellow syndicate members throughout, using the text chat capability.

10,000 Volts integration

10,000 Volts debriefing traditionally operates in a room with participants sitting on round tables with access to the system through iPads or Laptops. Over 400 of these events have been carried out worldwide.



During Covid 19 it was not possible for people to attend these events in person and a new method of delivering these debriefing sessions was developed called 10kv.Cloud. The software was ported to smartphones with live stream video facilitation. During the 18 events that were carried out in the crisis, each lasting about an hour, each event generated an average of 60,000 words, which were then analysed using phenomenological research methodologies, into reports with recommendations.

Whilst these debriefing sessions were incredibly powerful, the face-to-face discussions that provide for such a human dimension in these events, was missing. With the creation of Hydra Presence, it is now possible to integrate 10,000 volts debriefing and the table discussions by providing access to 10,000 volts methodology in the Hydra Presence Syndicate rooms.

CregoTools 10kv : Covid19 - Together - Lets Talk : Interim Operational Review

The event will start 15:05

- (529) Activity within your Local Resilience Forum
- (141) Regional Support
- (241) National Support
- (139) Concurrent Emergency
- (194) Forward Look
- (270) Personal Reflections & Insights
 - (2) This has been a time like no other. I have always been proud to work for the NHS generally, and as a doctor specifically. It has been an incredible time to be in a position of senior leadership and I have felt

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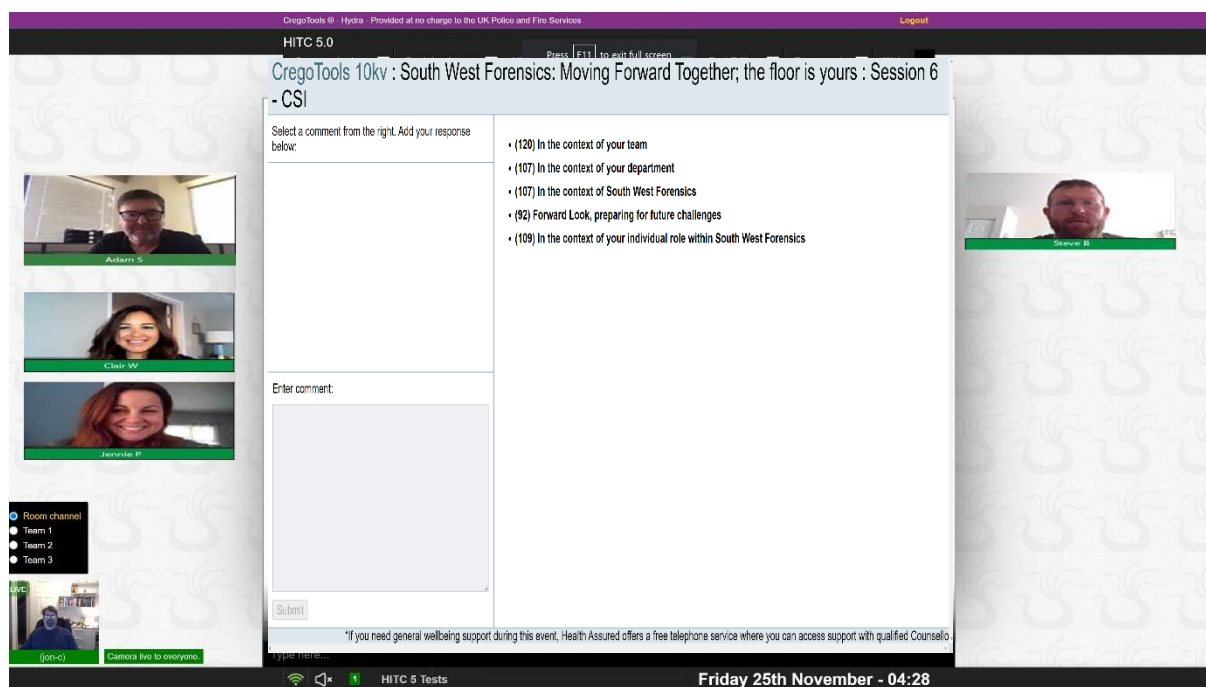
Personal Reflections & Insights

Enter comment:

Submit

ions, thank you very much for your passion

The 10,000 volt methodology operating on a smartphone, with live video streaming of the facilitator, developed during the Covid 19 Pandemic and used 18 times mid-crisis



The image above demonstrates that delegates have direct access to 10,000 volt debriefing methodologies AND can participate in group (table) discussions, recreating the final element of engagement that operates in a physical 10,000 in-the-room session. Individual virtual ‘tables’ can also be brought into the virtual plenary sessions available using Hydra Presence. This latest integration enables the full portfolio of CregoTools methodologies to be accessed remotely.

Hydra Presence works on all computer platforms including iOS and Android. It facilitates the inclusion of subject matter experts who can be invited into events for short engagements. For example, technical experts can join the virtual syndicate rooms or the virtual plenary sessions to provide advice and guidance. Traditionally, this has been difficult to achieve as experts have limited time and when asked to travel to a Hydra event must dedicate significant periods of their day. Now with Hydra Presence, key experts, sponsors, and keynote speakers can be booked to join the sessions and can provide expert input to any event.