Enhancing the Sensor-Decider-Effector Process

Digital Intelligence
BAE SYSTEMS

The Sensor-Decider-Effector complex is a conceptual framing for target acquisition and operational execution. It is an area that is constantly evolving as new technologies come into play and the battlespace becomes ever-more congested and competitive.

The process can be completed in various ways to difference levels of effectiveness. Here, we run through a few examples and outline how to meet a 'best' level of operation.

Within all scenarios, the Decider is also pulling in contextual intelligence, political consideration and Rules of Engagement to ensure his or her actions are appropriate.

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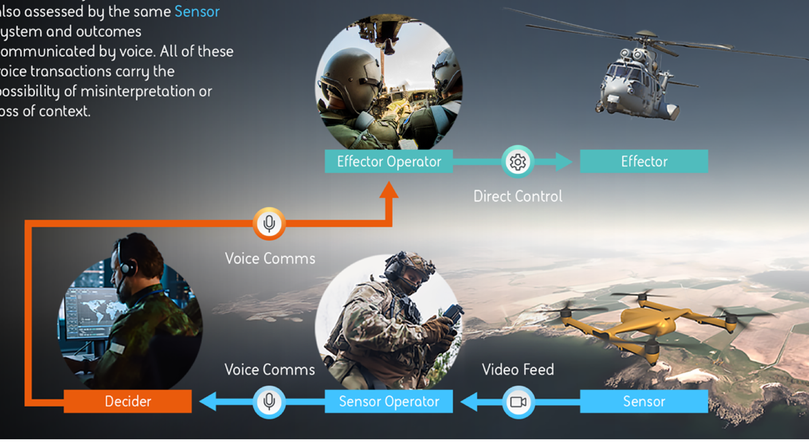
★★★ Scenario I - Basic

This example shows a reconnaissance unit feeding information over a voice connection to a forward HQ, and the supported commander in this location communicating the decision to engage fires again by voice to an Effector system.

Battle Damage Assessment (BDA) is also assessed by the same Sensor system and outcomes communicated by voice. All of these voice transactions carry the possibility of misinterpretation or loss of context.



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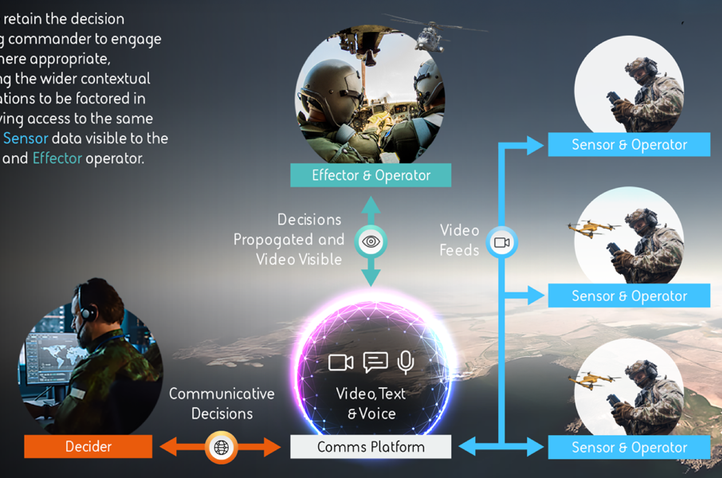
★★★ Scenario 2 - Better

This enhanced approach takes the most recent adoption of applications to share video feeds with Effector operators, as it's much easier to correct fires when you can actually see the impact point.

But we retain the decision making commander to engage fires where appropriate, allowing the wider contextual implications to be factored in and giving access to the same shared Sensor data visible to the Sensor and Effector operator.



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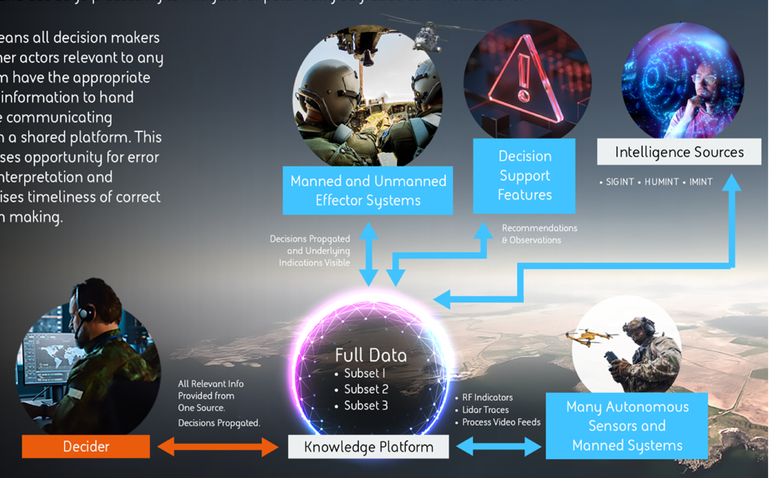
★★★ Scenario 3 - Best

But we can take things a step further still. In this scenario, all available battlespace data and intelligence preparation is brought into a single knowledge centre. This data can be subdivided with only relevant elements passed to the edges, and use edge processing to mitigate for potentially degraded communications.

This means all decision makers and other actors relevant to any problem have the appropriate shared information to hand and are communicating through a shared platform. This minimises opportunity for error or misinterpretation and maximises timeliness of correct decision making.



Introducing our Battlespace Management and Intelligence System (BMIS)

BMIS can support Recce Strike scenarios by acting as the knowledge centre for military operations.

Leveraging integrated intelligence streams from across assets and domains, BMIS provides real-time situational awareness and the insights required to plan and execute complex missions.

Find out more