



**TAKE OPERATIONAL EXCELLENCE
TO ANOTHER LEVEL**

WHAT EPSIS TEAMBOX™ DOES FOR OIL AND GAS PRODUCTION

**SUPPORTING SAFE AND EFFICIENT PRODUCTION AND
OPERATIONS:**

ORGANIZATIONAL ALIGNMENT AND OPERATIONAL EXCELLENCE

ORCHESTRATED ACTIVITIES ACROSS THE ASSET TEAM

IMPROVED FORMAL AND INFORMAL COLLABORATION

INCREASED OVERALL PRODUCTION EFFICIENCY

INCREASED ORGANIZATIONAL RESILIENCE

SYSTEM-WIDE OVERVIEW

PROACTIVE MANAGEMENT

REDUCED NUMBER OF SHUTDOWNS

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EPSIS TEAMBOX™ – THE VALUE TO THE BUSINESS

TO THE ASSET MANAGER – SAFE & EFFICIENT PRODUCTION & OPERATIONS – HOW?

– IMPROVES OPERATIONAL DISCIPLINE – HOW?

- Provides focus for all members of the team by quickly and efficiently providing data and analysis to the right people in the right place at the right time.
- Provides structured and consistent information to all team members to increase efficiency of on-going operations.
- Provides guided support for unplanned events by quickly aggregating key information and making it available to support efficient and timely decision making to resolve the particular problem.
- Can intelligently display data for multiple wells simultaneously and bring a particular well into focus if there is an alarm/event that requires scrutiny; whilst still leaving all other wells viewable in the background
- Shorter time to decisions
- Provides real-time dashboard of real data from live applications



– ENHANCES EXISTING WAYS OF WORKING – HOW?

- Use the same IT systems and infrastructure but orchestrating them.
- Integrates existing data streams and information from engineering applications to enhance decision making and shared situational awareness amongst production and operations teams onshore and at the production site.
- Configuration is user friendly, no dedicated resources or IT expertise to operate.
- Solution is vendor neutral and will work with any application

“In the morning I need to have accurate information about the progress the night before, with data to back that up. With Epsis TeamBox™ I am now able to do that at the touch of button.”

Asset Manager

TO THE SENIOR MANAGEMENT

– IMPROVED PRODUCTION EFFICIENCY – HOW?

- Increased organizational resilience
 - Proactive management, system-wide overview
 - Reduced number of shutdowns
- Organizational alignment and excellence
 - Improved collaboration across the whole asset team
 - Increases overall efficiency (people and asset)



– IMPROVE HSSE – HOW?



- Improved preparedness
- Stimulates operational discipline
- Improves and enhances team and cross discipline collaboration
- Enhances existing ways of working



“During the night the offshore operator observed on the Situational Awareness screens that well P-19 started drowning. She launched the “well performance optimization” workflow and found a new set point for the gas lift valve to remedy the issue before it had a major impact on Production Efficiency.”

VP Production



TO THE ASSET TEAM – ENHANCE CURRENT WAYS OF WORKING – HOW?

– SIMPLIFIES WORKING DAY – HOW?

- Simpler, faster path to data & applications (1 click)
- Structured responses to production issues and process upsets
- Simplifies preparation and analysis before, during and after meetings
- Constant situational awareness keeps everybody up to speed with current system-wide status
- Provides support for unplanned events by quickly aggregating key information and making it available to support efficient and timely decision making to resolve the particular problem.
- Provides real-time dashboard of data from live applications



Structured response to production issues



Situational Awareness Screen

“We can get to the information we need faster together with the correct context; enabling us to make better informed decisions quicker and more consistently.”

Asset Team



EPSIS TEAMBOX™ – AN OVERVIEW

The solution discussed below is based around the Epsis TeamBox™ software toolset. This multi-functional application has many uses within a real-time operating environment and is core to the philosophy of providing the business with a roadmap to achieving the full potential from its investment in this environment. The core functions are:

- A workflow engine that enables standard, repeatable activities to be orchestrated allowing for more efficient use of time, improved consistency and the ability to make better decisions, faster.
- Multiple display management, without the need for propriety video wall controllers (solution is also agnostic to the make and model of display used).
- Separation of physical and logical displays, allowing the super high resolution of modern display technology to be used much more effectively.
- The use of logical displays also reduces (but doesn't remove) the need for complex data integration and dashboard projects by presenting the users with all the required data in an ad-hoc dashboard that can be visually integrated by expert users.
- An easily configurable engine that allows pre-set data/application layouts to be displayed on the video wall and also enables the video walls to be repurposed instantly.
- IT-based data/application sharing to any other user or video wall with Epsis TeamBox™ installed, giving a much more flexible and scalable sharing solution that doesn't require complex switching technology. Additionally the sharing technology is designed to require low-bandwidth, for sharing with remote sites, while retaining pixel-perfect images.
- Integration with video conferencing solutions to allow video communications to be built in to the pre-sets for the video walls.
- For remote meeting participants (outside the corporate network) who have not purchased Epsis TeamBox™, a free remote client is available, which allows the participant to see some or all of the screens being shared.
- A local sharing solution that allows any PC on the corporate network (with Epsis TeamBox™ installed) to share some or all of the content on their desktop with the video wall(s) an operations center. Additionally, this removes the need for video cables in meeting rooms to share content on the display in the room.
- An open WebAPI that allows remote control of the workflows and screen layout functionality by 3rd-party applications, e.g. web browsers, scripts and 3rd-party software.



epsis™ TeamBox

KEY CONCEPTS WHEN DESIGNING AN EPSIS TEAMBOX™ SOLUTION

SITUATIONAL AWARENESS – It is widely recognized that situational awareness is a critical commodity for any team working in a complex industrial system. Therefore, we recommend designated displays within any operations center are populated with content that provides background situational awareness of business operations relevant to the team sitting in the center.

ORCHESTRATED WORKFLOWS – unlike standard technical or IT workflows, the purpose of an orchestrated workflow is to automate linking the right people, the right tools and the right information in a fast and consistent manner.

FORMAL COLLABORATION – Planned meetings between individuals and teams with a set business objective and usually run using an orchestrated workflow.

INFORMAL COLLABORATION – Where the teams and individuals can overhear discussions in another team and interject essential information or a new perspective.

CONTINUOUS IMPROVEMENT ENVIRONMENT – The solution is specifically designed to have the flexibility to easily evolve as the users and the business begin to push the boundaries of the initial delivered solution. We believe this is more sustainable in the long-term and provides a better return on the Operations Centre investment.

NO BESPOKE PROGRAMMING REQUIRED AFTER GO-LIVE – the “Learning Environment” key concept actively encourages the users to evolve the operations center. The proposed solution provides an easily configurable workflow engine that allows the users to evolve current processes and easily implement new processes.

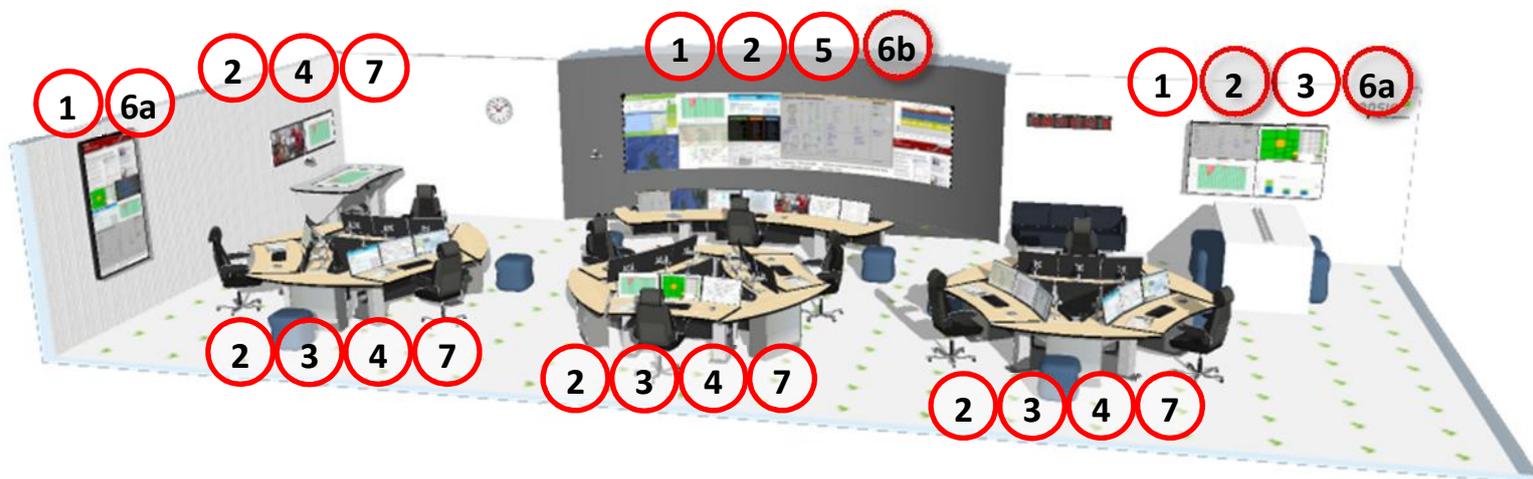


Collaborative Working Environment

HOW IT MIGHT LOOK

OPERATIONS CENTRE

The following scenario demonstrates the range of applications and benefits when deploying Epsis TeamBox™.



Possible Operations Centre Lay-Out

In the image above, the operations center has been configured to take in to account the following key concepts – Situational Awareness, Orchestrated Workflows, Formal and Informal Collaboration, Integration through WebAPI and Multi-mode Surveillance Screens.

- ① Situational Awareness screens. The users are immersed in relevant data within the room. The data is consumed passively; increasing awareness of current state, helping prevent surprises and, because it isn't presented on the user's screens, it doesn't distract them from their on-going activities. Multiple screens have been proposed as it is assumed that each operations center will be monitoring more than one remote site, therefore the users will need to maintain surveillance of other locations even when they are focusing on an issue at a specific location.
- ② Orchestrated Workflows. Managing the volumes of data required on the surveillance screens and the users' desktop can be an unnecessary time-sink; therefore orchestrated workflows are pre-configured with the pre-requisite collections of data and applications needed for each regular and repeatable activity within the center.
- ③ Formal Collaboration. Collaboration with external stakeholders is enabled at the surveillance wall with a video codec (assuming bandwidth allows) and at the user's desktop with webcams and soft clients. Pixel perfect data sharing



(at low bandwidth) allows remote participants to see exactly what the participants in the room are seeing.

④ Informal Collaboration. Technology is not always the answer. The center is designed so that users in common roles are seated together and groups of users are seated near each other to allow them to overhear what is going on and contribute if necessary.



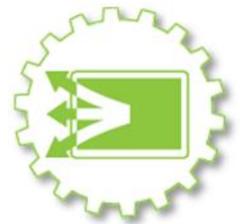
⑤ Integration through WebAPI. Integrated with Epsis TeamBox™, the applications on the Situational Awareness screens enable users to not only see the status of each location by looking at the tag, they can also initiate an orchestrated workflow by clicking on each tag and opening relevant data for that location and re.



⑥ Multi-mode Surveillance Screens. Typically, monitoring screens within an operations center show only one set of data or application. However, organizations typically have more data than can be displayed on these screens. Epsis TeamBox™ workflows allow these screens to be re-purposed at the touch of a button. In this scenario; screens 6a are showing high-level situational awareness information that is scripted to automatically change the data every 30 seconds and screen 6b is being actively used to collaborate with a remote site. However, due to the design of Epsis TeamBox™, any of the screens could be repurposed to take on all the other roles (hardware, such as video codecs allowing).



⑦ Cable free sharing. Publishing desktops, screens or applications over the network allows anyone within the corporate network (with Epsis TeamBox™ installed) to publish to the operations center. This allows expert users to demonstrate what they are talking about to those in the center and even remote participants in collaboration sessions with the center.



WHERE TO START...

EPSIS TEAMBOX CONSULTANCY SERVICES

The Epsis consulting division helps assist our customers in maximizing and utilizing the full potential of Epsis TeamBox within their organization.

Our consultants have 4 main roles:

- Ensure an understanding of the benefits of Epsis TeamBox and its place as a part of a larger business process orchestration and/or collaboration initiative.
- Support all phases of project delivery, from the development of a business case or project brief, in effect pre-award, through to ensuring continued use and evolution of a live, deployed solution.
- Deliver training on how to use Epsis TeamBox
- Enable feedback between the clients and the product development team.



Epsis TeamBox combines People, Processes and Technology to deliver Capabilities.

– UNDERSTANDING THE BENEFITS OF EPSIS TEAMBOX

As a software platform, Epsis TeamBox can be used to achieve a wide range of business goals. The image below shows some of these goals – increasing, from left to right, in complexity, time and investment.



The role of the Epsis consultant, particularly early on in the relationship with a client, is to understand which business goals are driving the interest in Epsis TeamBox, to give an overview of our experiences in projects with similar goals and to explain and document where Epsis TeamBox can be utilized.



– PROJECT DELIVERY

Epsis TeamBox is usually delivered within a project environment; though the scale of the project can be anything from a meeting room upgrade to a multi-site business transformation programme. Epsis Consultants are able to support clients through all the phases of a project regarding the role of Epsis TeamBox. Our consultants have years of experience in Digital Oilfields, IT technical architecture, collaboration, management of change, project management, the conceptual design of physical environments and custom application design using the Epsis TeamBox Web API. This breadth of experience allows our clients to use Epsis consultants to strengthen their own teams, to fill roles they may not have in their own teams or even, very occasionally, have Epsis manage and execute the whole project.

The initial and final phases can be particularly important for an organization to get the most out of investing in Epsis TeamBox. The initial phase can be used to not only set the scope of the first project, but to develop a roadmap that defines incremental deliveries and set expectations for the business goals that will be met later. Experience has shown that this incremental approach produces value earlier, is easier to manage, and helps focus the project team. The final phase when the project has gone live and the solution is in operation is the opportunity for regular monitoring to ensure the solution is being used as expected and to make adjustments as required.

– TRAINING WORKSHOPS

The Consultancy team also offers training workshops for our clients on-site or at locations of their choosing. TeamBox is a simple but powerful tool. A one day training session is sufficient to enable users to create and define workflows including specific applications and reports, define layouts and to create “one click meeting” workflows increasing overall collaboration efficiency and effectiveness.

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