grass valley

Playout Business Continuity using Morpheus and ICE Deployed in Amazon Web Services (AWS)

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There are many reasons why running a playout system within the public cloud is attractive: hosting short-term "pop-up" channels, for example, where you only pay for channels when they are being used, or a disaster recovery system designed to offer business continuity when the main site is compromised. A facility might be compromised by a *force majeure* (e.g., flooding, fire, prolonged electrical outage), and thus cannot be operated by staff. Or there may be a case where the main facility is fully operational but staff cannot be on site due to unsafe or hazardous conditions. A scenario where staff cannot be on site lends itself to using a system hosted in the public cloud which can be accessed from any location that has an internet connection.

By utilizing cloud offerings such as Amazon Web Services (AWS), new approaches to resiliency and distribution become available. With the increase in compute power available from today's public cloud server instances, new economic models can be realized. Grass Valley is able to offer playout using AWS alongside its uncompressed IP solutions for data centers and traditional SDI appliances.

What it Does

Morpheus and ICE are Grass Valley's enterprise and feature-rich playout solutions used across the globe by many broadcasters. Morpheus and ICE are now available for deployment in AWS.

Grass Valley has invested in several areas of product development to support this solution, ensuring the various technologies of playout products are suited to deployment in AWS. For broadcasters already familiar with Morpheus and ICE, we'll explain **how the system you use today has evolved to be suitable for deploying in AWS.**
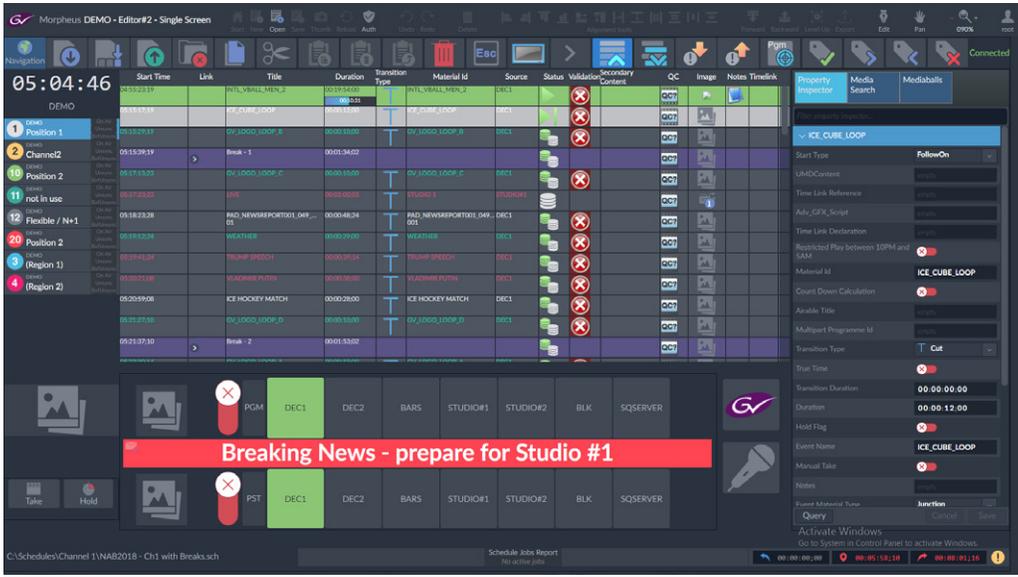
Example Morpheus UX screen with playlist and master control controls.

Operational Control

Operational control is accomplished using the latest generation of Morpheus user interface — Morpheus UX. This HTML5 interface is naturally suited to cloud deployed systems, with low bandwidth requirements, and low compute needs for the user's client PC.

Morpheus UX is unique in its ability to let organizations craft their own user experience for their operators. Screens can be completely redesigned to support different operational requirements; and this feature is now in use by several major global broadcasters for live operations.

Business Continuity Model

Public cloud deployments may often be considered in parallel with the main "on-premise" playout system, with additional channels being deployed in AWS and the primary playout channels remaining on-premise. This configuration is ideally suited to a playout business continuity system that can be launched as required in response to an anticipated, or actual, major problem at the main facility. In these situations, where traditional systems remain a part of the broadcaster's operations, it can greatly assist operational and engineering effectiveness to have a common user interface and backend technical infrastructure.

By deploying Morpheus and ICE both on-premise and in the cloud, broadcasters can deploy a hybrid environment. This allows a broadcaster to select the cloud hosted system in the event the main on-premise system cannot be used, such as a scenario where staff are unable to on site at the main facility for whatever reason.
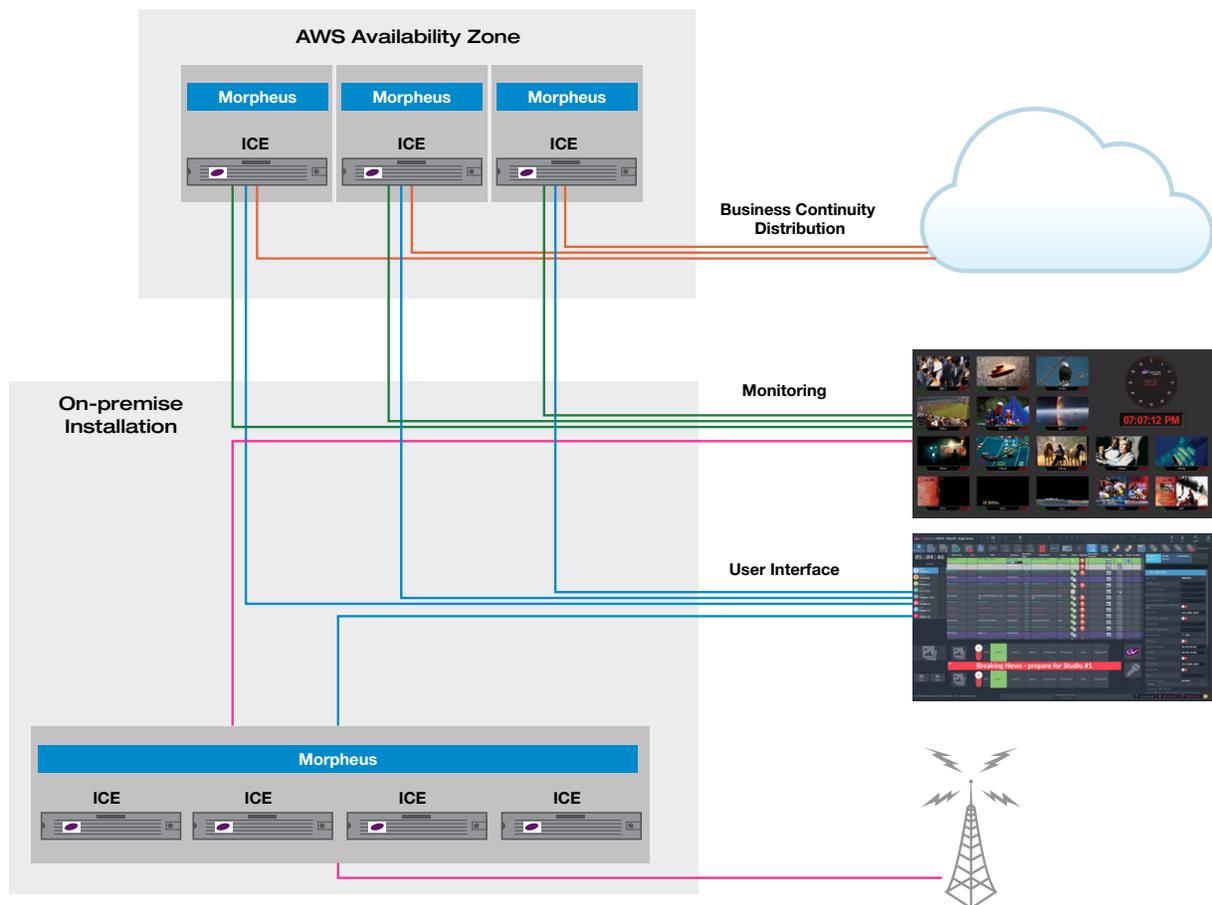
Example of a hybrid system with AWS and on-premise deployment, monitored from a common UI

Media Management and Storage

AWS offers various storage solutions. Grass Valley can provide a Morpheus Transfer Agent designed to interface to AWS S3 storage. This Transfer Agent is an integrated part of the existing Morpheus Media Management framework and allows content stored in an on-premise system to be pulled into an AWS playout system in response to missing events in the loaded schedule. Alternatively, content can be directly pushed to the ICE server where it can be registered in the system and played out to air.

Primary on-premise channels

Additional AWS channels
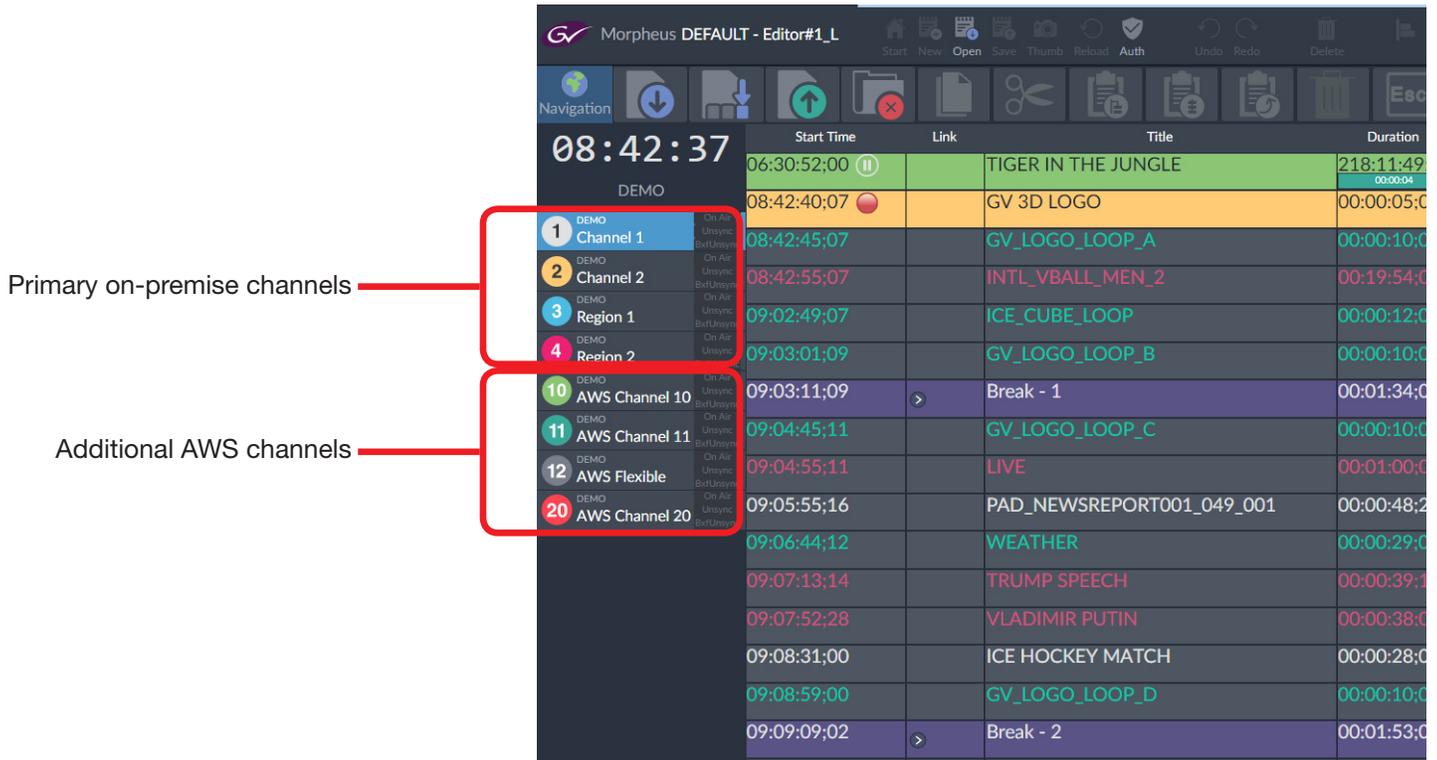
Morpheus web-based UX operator interface showing both on-premise and AWS channels

Please contact your authorized Grass Valley representative for more information, or visit our website at: www.grassvalley.com

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