HYBRID EVENTS

Dorier
Audio-Visual global solutions

WHAT ARE HYBRID EVENTS?

Hybrid Events **erase geographic borders** by virtually bringing together people from all corners of the world, giving them the opportunity **to participate in the same experience at the same time**, no matter where they are located.

Three ways we bring together your dispersed audience:

MULTI-SITE EVENT: participants are attending the same event from different cities. We recreate identical environments in every hub to enable attendees to live the same experience simultaneously. Speakers and participants from every hub have the ability to interact in live with any other hub, without delay.

WEBCAST: we transmit the content of your event on a secured web platform. Participants can log in from any connected device without any constraints in regards to location. Online participants have the ability to ask questions to the main site.

WEBINAR: from a professional studio, your presenters conduct a seminar over the web by using our webcast solution. Participants in different locations can see and hear the presenter, ask questions, or even answer polls.

WEBINAR FEATURES

HIGH VISUAL QUALITY
Content delivered in full HD (1080p) with adaptive bit-rate, accessible on all devices and all platforms.

SMART CONTENT MANAGEMENT
An efficient visual experience without any hassle through intelligent content display.

AUDIENCE INTERACTION
Give the opportunity to your online audience to interact with your speakers through live Q&A, polling and survey.

REAL-TIME ANALYTICS
Monitor online attendance per location, session and language to get meaningful data.

VIDEO ON-DEMAND
Extend your content lifecycle and re-purpose it as on-demand content for different channels & segments.

NETWORK SECURITY
Safeguard your log-in information and webinar data with end-to-end encryption.

BRANDING INTEGRATION
Full integration of your branding to reflect your identity & customize the experience of your audience.

MULTI-LANGUAGE
Conduct one single virtual meeting with multilingual channels.

THE BENEFITS OF GOING HYBRID

1

BROADEN THE REACH OF YOUR MESSAGE

Stream your conference live to an unlimited number of virtual attendees and reach people that could not attend your meeting in person.

2

EXTEND THE LIFE CYCLE OF YOUR MESSAGE

Make your content a valuable and ongoing resource by making it available for viewing post-event and well into the future.

3

INCREASE REVENUE FROM YOUR EVENT

Charge virtual attendees for online access and continuing education credits and create new sponsorship opportunities.

SAVE TIME, MONEY & FACILITATE PLANNING

4

Eliminate and reduce travel costs and flying time by offering an alternative to onsite attendance.

CAPTURE VALUABLE INSIGHTS & CONVERSATIONS

5

Track conversations, topics of interest, presentations attended and content accessed through analytics to get valuable insight.

CONVERT VIRTUAL AUDIENCE TO IN-PERSON ATTENDEES

6

Convince your virtual audience about the value of your event + make them realize the benefits to attend in-person next time.
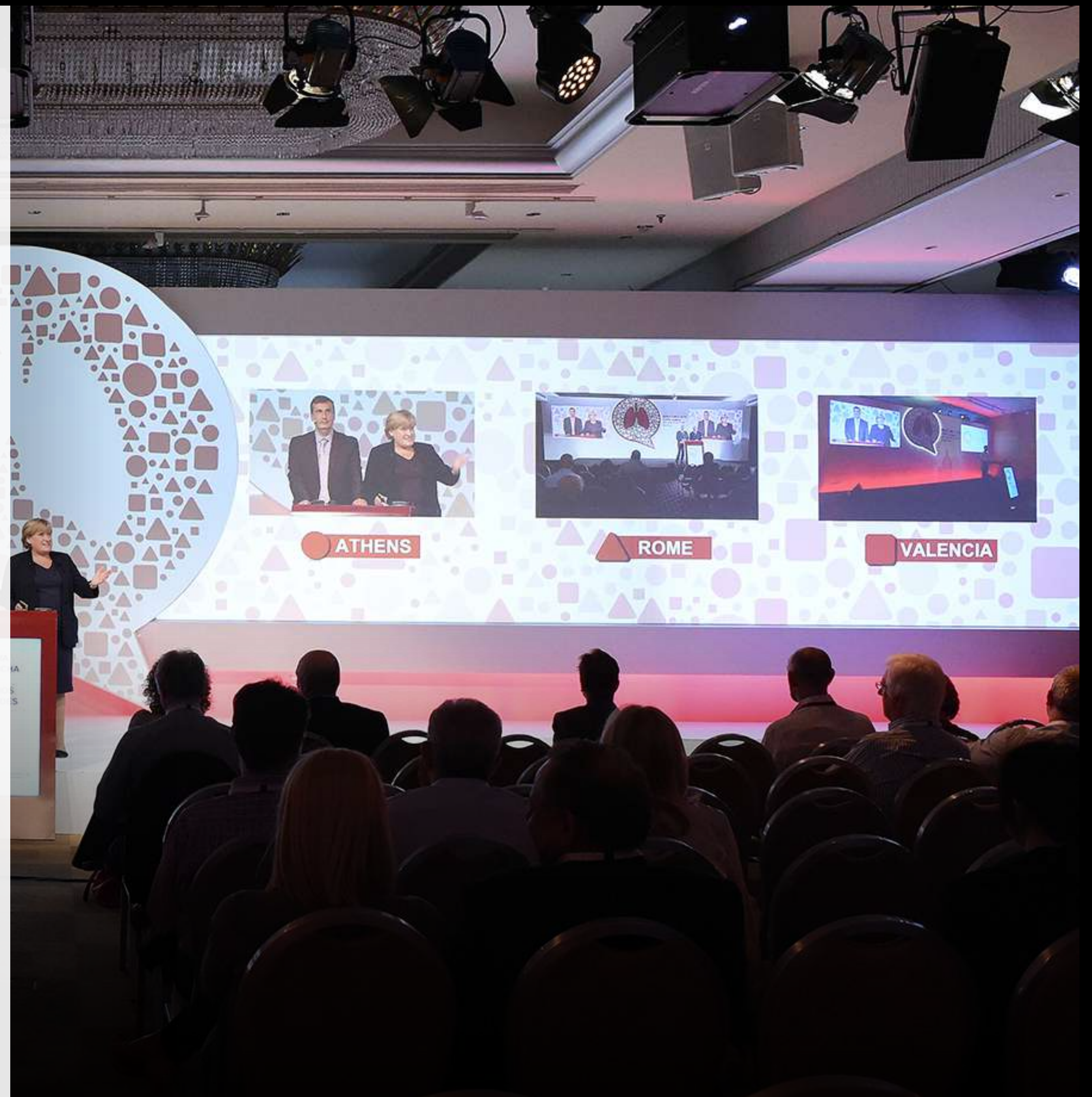
MULTI-SITE EVENT

MULTI-SITE EVENT

The most efficient way to connect multiple cities and send an unifying message across all sites, simultaneously.

o Enjoy a zero delay environment

o Gather audiences despite distance

o Create full live interaction between all sites

o Share audio, videos and presentations

o Unlimited number of participants

▶ Play the demo video

IN-HOUSE HYBRID PLATFORM

THE MOST ACCOMPLISHED SOLUTION AVAILABLE ON THE MARKET

Our technical infrastructure for hybrid events is hosted in a secure and highly capable data center very close to the major interconnection nodes of the global Internet.

This infrastructure is connected to our premise through dedicated and redundant fiber links offering very low latency, which allows us to integrate, mix, enrich distant signals and send it back in the blink of an eye.

BENEFITS

o Robust technology

o Redundancy and resilient to IP packet loss

o Seamless discussion between hubs, compared to satellite transmission:

   ▪ 70ms vs. 700ms latency for regional transmissions
   ▪ 150ms vs. 4s between Europe & USA
   ▪ 250ms vs. 8s between Europe & Asia
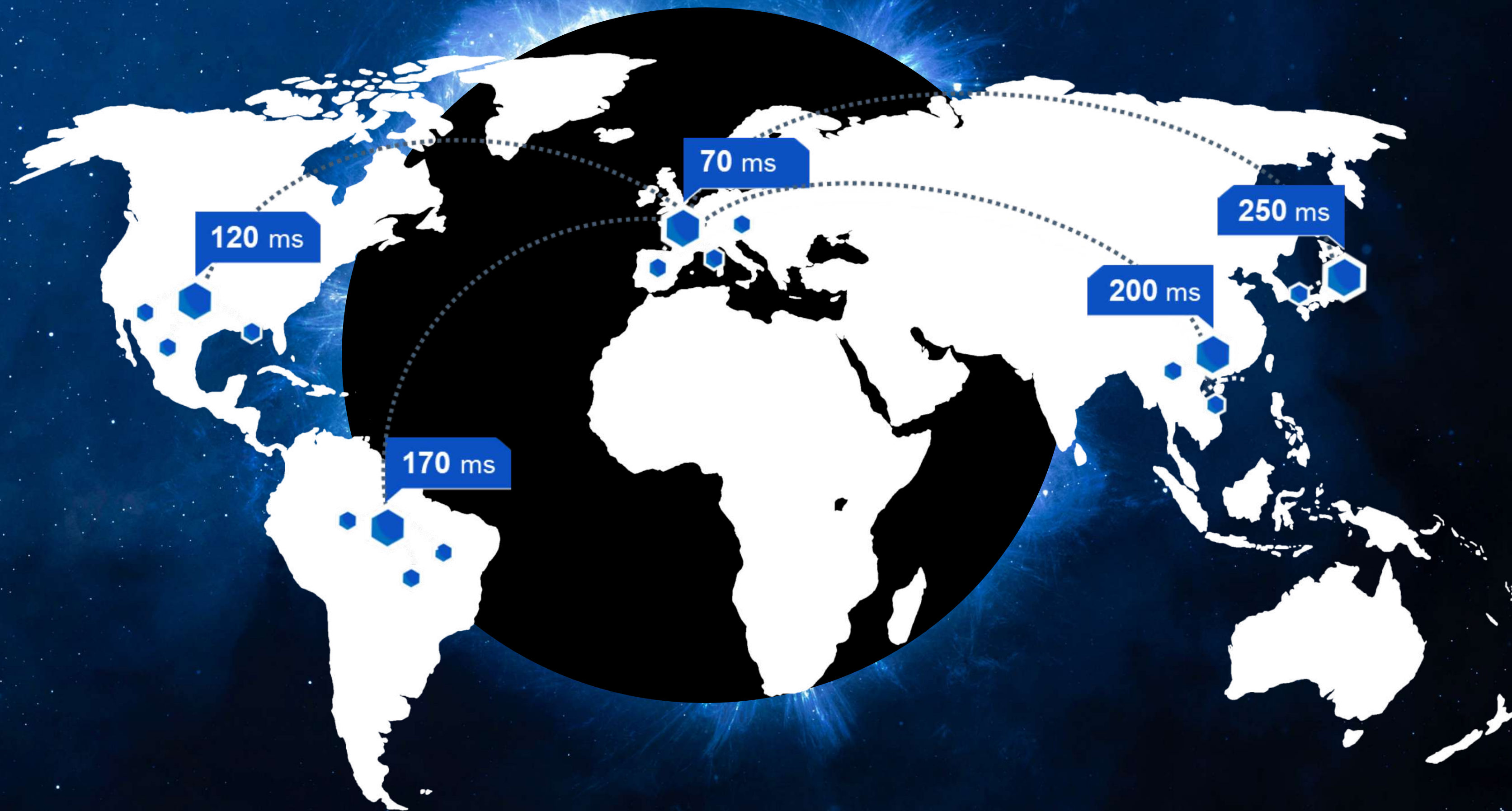
IMPROVED QUALITY AND RELIABILITY OF GLOBAL MULTIPLEX

With the widespread deployment of our multiplex routers on the multi-cloud infrastructure, we are now accessing a new level of quality, reliability and speed for regional or global multiplexes. Our partners give us more speed, minimal packets loss and high-performance intercontinental links.

NEXT GENERATION HYBRID ENCODER : BLUECODER

We have just delivered our next generation hybrid encoders for Multiplex & Webcast events.

Drawing on nearly 10 years of experience in producing multi-site hybrid events, we designed and developed our encoders as a key high-tech component at the intersection of network, broadcast and signal processing technologies.

Our new BlueCoder now offers more performance and reliability, improved signal acquisition and easier on-site setup for an ever more rewarding multi-site & hybrid experience.

- Live audio/video/data encoding/decoding for Multiplex transmissions
- Live audio/video/data encoding for webcast transmissions
- Live audio/video/data multi-source switching & mixing
- Live recording using multiple compressed/uncompressed codecs

WEBCAST

Your content is too valuable to be temporary. Amplify the impact
of your conference by making it viewable worldwide.

o Scale up your number of participants worldwide

o Foster trust with your audience

o Share audio, videos and presentations

o Provide an interactive, television-like experience

o Obtain the lowest latency broadcast solution on the hybrid market
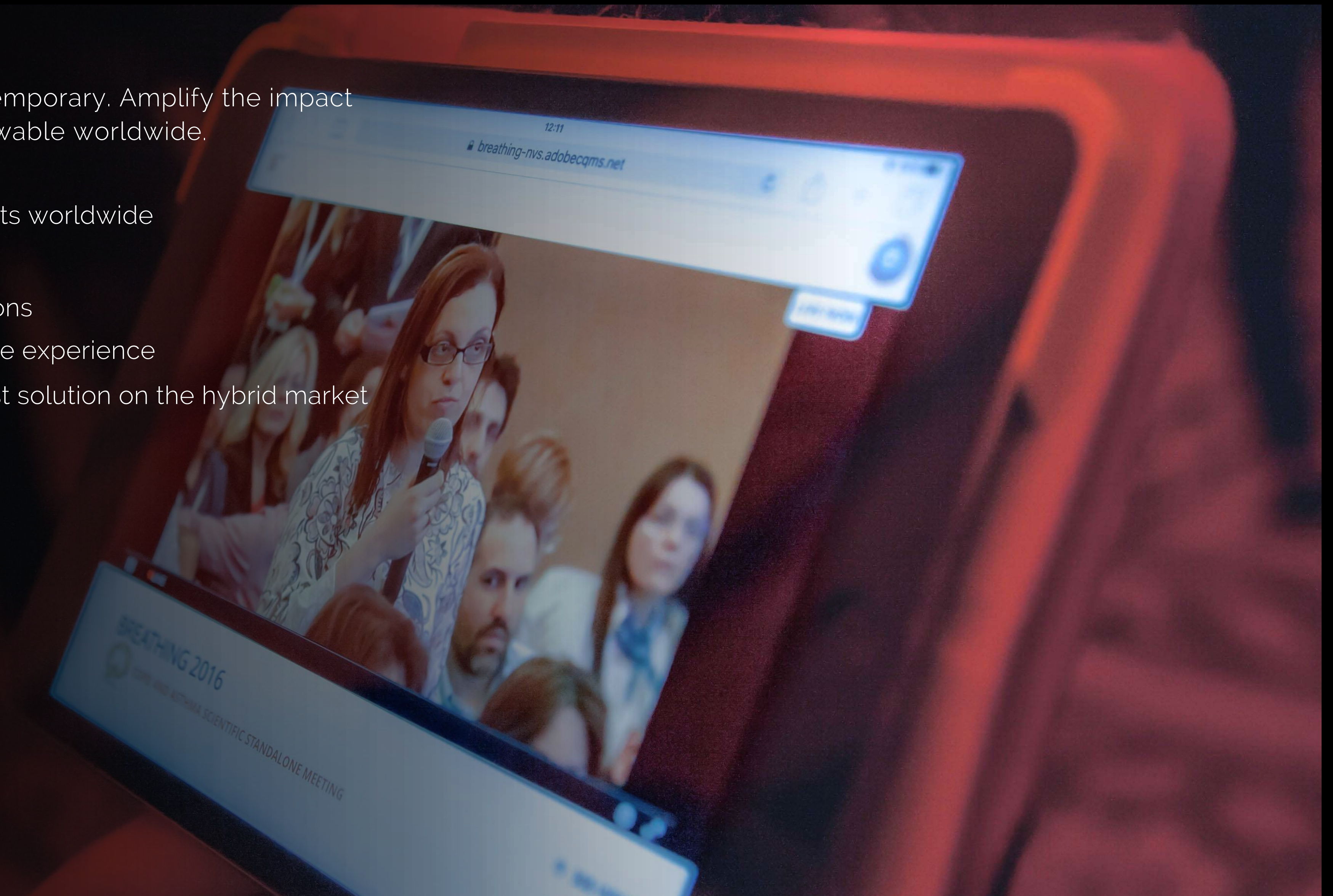
LOW-LATENCY WEBCAST

For webcast meetings and events requiring strong audience engagement and interactivity, we now deliver low-latency streaming, limiting the overall transmission delay to a few seconds.

All sites connected to our low latency webcasts (up to 500) receive the program at the same time with a very short delay (less than 3 seconds), which allows to better leverage our interactive features:

- Live questions
- Live votes
- Live quizzes
- Live surveys

or those of your preferred service provider

Less than **3** sec. delay

Up to **500** connected sites

WEBINAR

WEBINAR

Conduct your seminar from a professional studio and take advantage of high spec technology to deliver your message.

o Provide an interactive, television-like experience

o Build-up your image as experts in your field

o Reduce costs and simplify planning

o Direct contact and interaction with your target group

Professional Studios
- Managed by professional studio operators
- Professional remotely controlled cameras
- Professional sound and lighting
- Make-up artist & Set furniture

Rich Program
- Lower thirds for speakers identification
- Titles for webinar sections
- Video jingles for new sections introduction
- Questions from participants displayed by a lower third banner

A SLEEK EXPERIENCE

To ensure a seamless experience and help you drive higher levels of engagement and interaction, a dedicated webcast manager provides guidance and technical support before, during and after your event, making sure that you make the most of your investment.

▶ Play the demo video

VIDEO ON-DEMAND

MULTI AXIS PLAYER

BE THE DIRECTOR OF YOUR OWN VIDEO ON-DEMAND EXPERIENCE !

For a brand new user experience, we are announcing a new multi-axis webcast player that will be available soon.

This new webcast player lets the user compose their own program by choosing from the contents that are offered.

They can choose to watch the slides in full screen, or opt for a video + slides composite, or alternate between a close frame of the speaker and a wide shot embracing the entire stage.
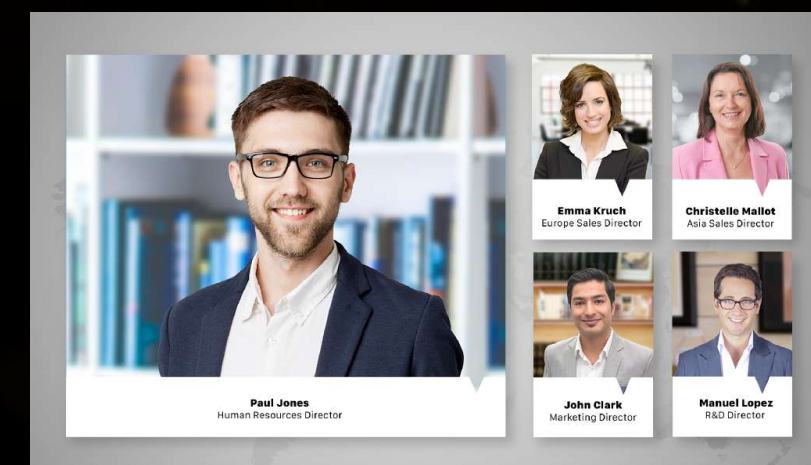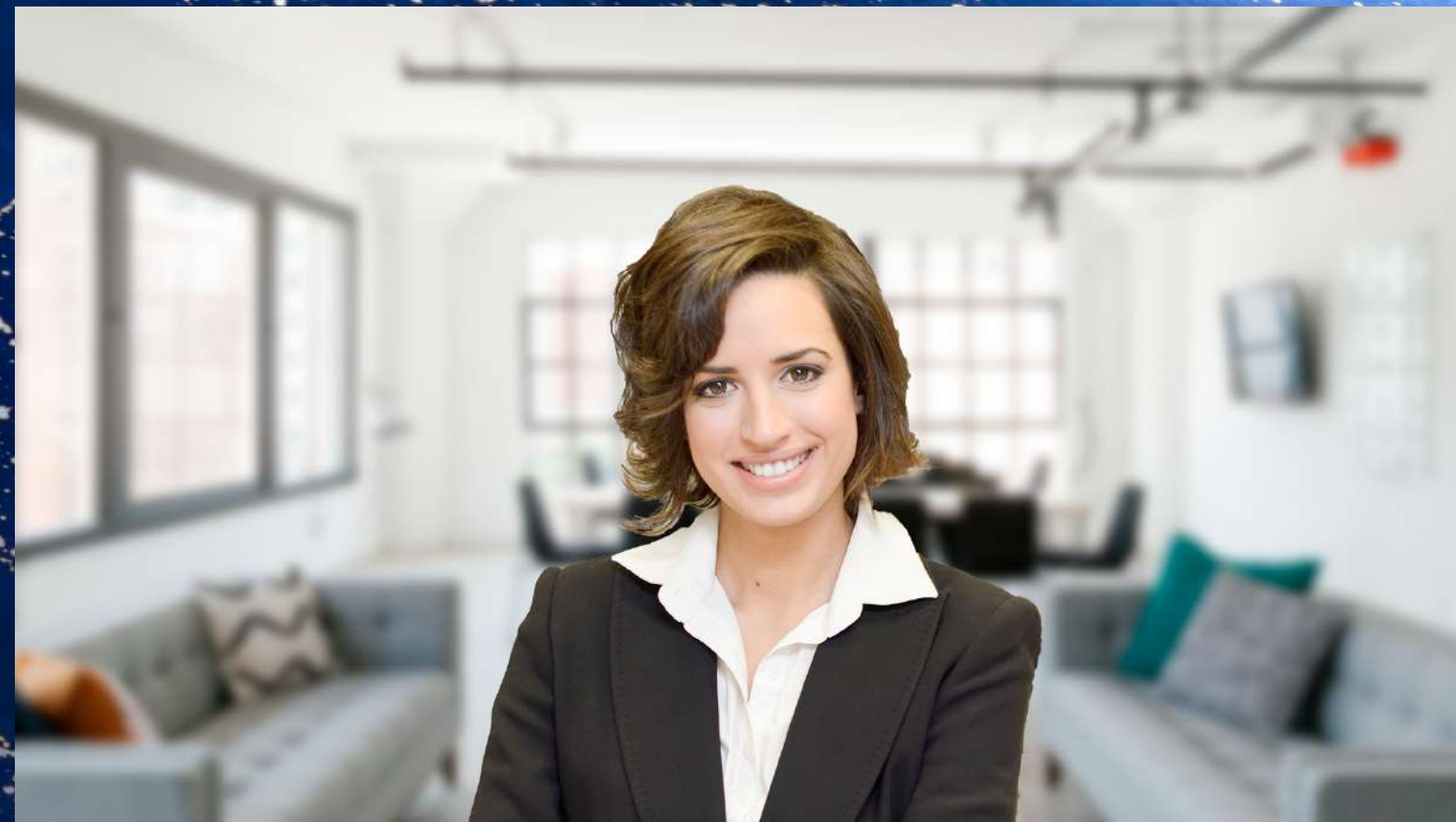
CREATIVE LAYOUTS

CREATIVE LAYOUTS

Our Multiplex Nodal offers creative layouts and chroma keying for smooth AR integration on studio sets and innovative LED walls compositing.

JAMES - Portland . OR

CREATIVE LAYOUTS

1

Each site transmits its signal to the nodal.

CREATIVE LAYOUTS

2

The nodal receives the signals from all sites and integrates them into the graphic processor.

CREATIVE LAYOUTS

3

Multiple layouts are applied to the signals (on a graphic background or within a chroma key mask, with additional content such as watermarks, titling, lower third), then sent back to each remote site.

CREATIVE LAYOUTS

4

On remote sites equipped with multiple VP's or UHD LED walls, the programs received from the nodal are integrated into the composit on the graphic mixer.

▶ PLAY DEMO

CREATIVE LAYOUTS

5

On simpler Multiplex sites and listening hubs equipped with a unique display without graphic mixer, single-screen layouts are displayed while benefiting from the compositing capabilities of the Multiplex Nodal.
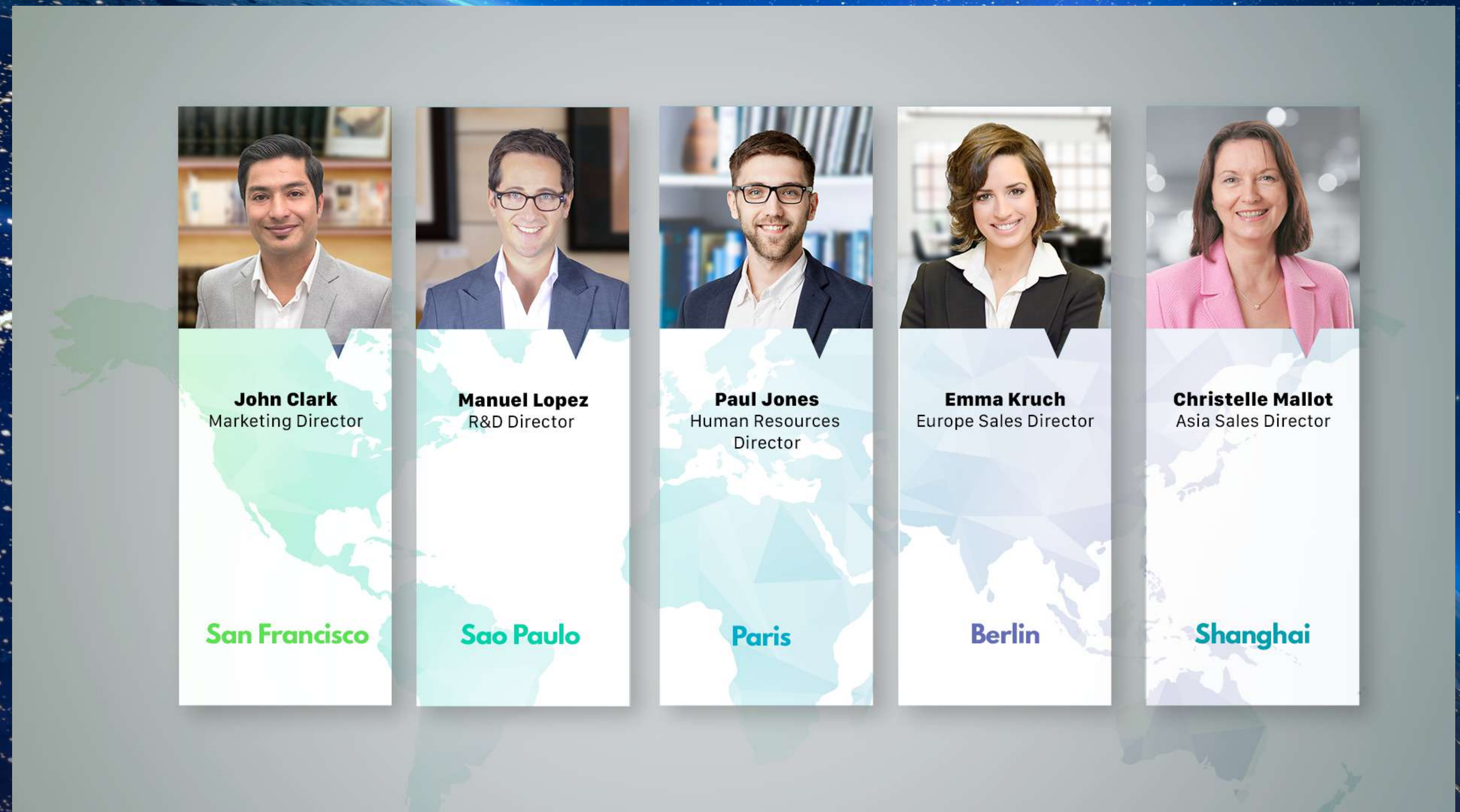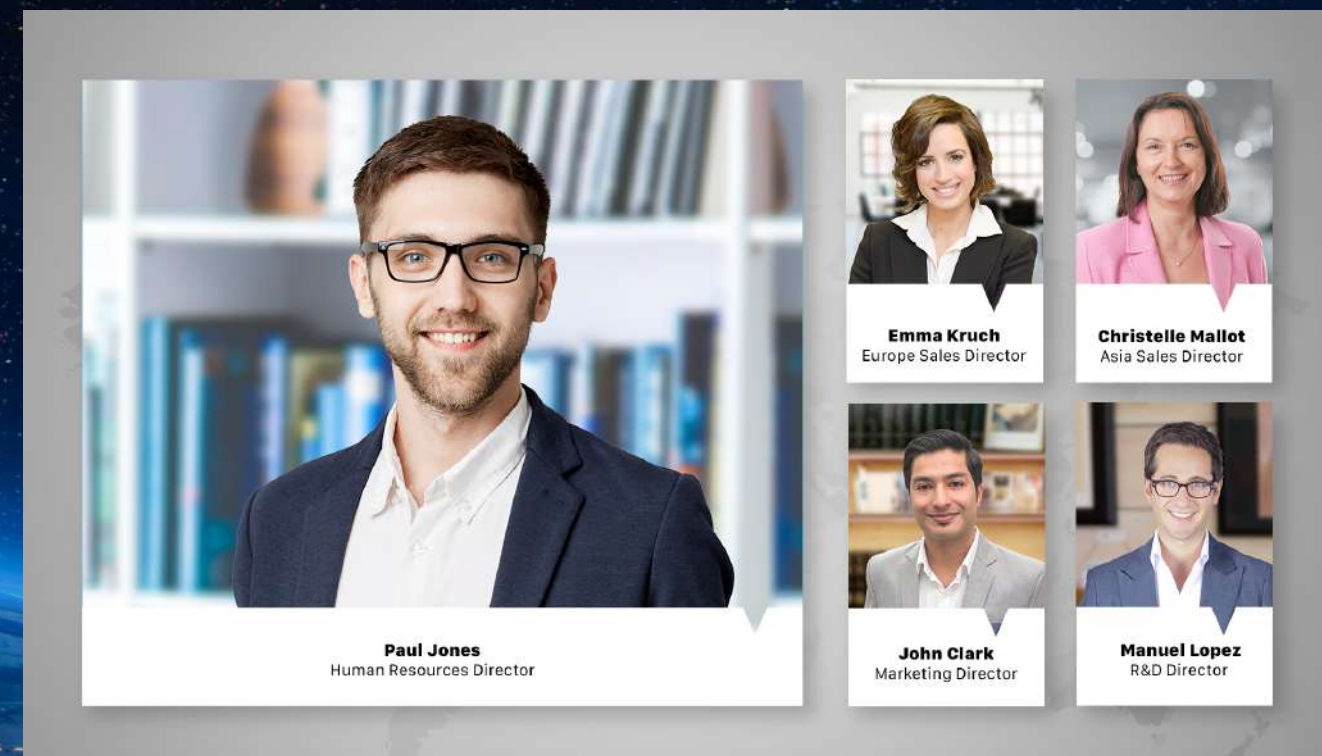
CREATIVE LAYOUTS

6

For Multiplexes organized from studio sets, the Multiplex Nodal can generate chroma key layouts intended to be mapped to 3D volumes for AR integration into the program.

SECURITY

A HOLISTIC APPROACH TO SECURED COMMUNICATION

Dorier's Multiplex solutions delivers unparalleled ease of use and high quality visual communications that leverages patented video technology and Scalable Video Coding (SVC), enabling end users to participate in high quality telepresence conferences and events from just about anywhere using standard broadband Internet Connections. Dorier's platform was architected with hardened security features that allows participants and connected sites to comfortably communicate securely.

While this approach offers great flexibility in access and endpoints, we also recognize the importance of protecting sensitive information transmitted over this medium from would hackers with malicious intent.

This document provides an overview of the features of our secure Multiplex option, designed to guard the integrity of your event and keep your communication and private information safe. Ensures that only   users and recognized components can respectively access user accounts and administration portal is fundamental for the telepresence systems.

MORE THAN JUST ENCRYPTION

o User authentication/ login

o Component authentication

o Component access protection

o Database protection

o Password protection

o Signaling encryption

o Media encryption

o Secure firewall traversal

A HOLISTIC APPROACH TO SECURED COMMUNICATION

Dorier's Multiplex portal established an encrypted HTTPS channel with each of the access points (hardware or software) that attempts to access the system and operates a certificate exchange issued by a trusted third party. After verification of certificates produced, the connection data is transmitted by the client securely encrypted HTTPS on the same channel. To preserve the user login data, no connection information is stored on software and passwords are encrypted customers in the server database. Furthermore, all connections of the portal on the databases are performed in HTTPS links.

Dorier hosts and operates its own infrastructure components in two data centers located in France. The multiplex infrastructure is fully redundant in all its components. To ensure greater reliability and improved service continuity, the Internet links of Dorier's infrastructure is based on two high-speed fiber connections provided by two distinct operators.

MORE THAN JUST ENCRYPTION

o User authentication/ login

o Component authentication

o Component access protection

o Database protection

o Password protection

o Signaling encryption

o Media encryption

o Secure firewall traversal

SIGNALING ENCRYPTION

Signaling is the way different components within Dorier's architecture communicate with one another. Protecting the information that is passed in this machine-to-machine communication from would be hackers is important for securing the network.

The secure Multiplex option leverages AES encryption over TLS for Multiplex endpoint and server communications with certificate support. Our platform supports Elliptical Curve Diffe-Hellman (ECDH), Diffe-Hellman (DH) or RSA for key exchanges.

The media encryption keys are also negotiated over this secure connection and are then used to encrypt the RTP media traffic.

KEY SECURITY FEATURES

o AES-128 bit media encryption

o Secure HTTPS login utilizing industry standard PKI

o TLS using strong encryption ciphers for signaling

o Password hashing in database

o Component blocking for spoof prevention

o Hardened Linux-based appliances for component access control

MEDIA ENCRYPTION

With the secure Multiplex option enabled, Dorier uses AES encryption over SRTP for audio, video and shared content. This helps protect the content of your conferences and events from being intercepted and decoded without your knowledge. Chat messages are transmitted over the secure signaling link when enabled and also use AES when the secure Multiplex option is included.

A set of keys is used for each form of media and each type of live event. With media encryption enabled for the system, a single Media Router is able to support up to 150 concurrent HD 1080p connections; significantly more capacity than MCUs costing 5 to 10 times as much.

KEY SECURITY FEATURES

o Optional firewall traversal using built-in Proxy software or explicit IP-to-IP firewall traversal using networked Router deployment

o Encrypted token technology for session security

o No login information kept at the desktop

o Graphic indication for encrypted calls on the call screen

COMPONENT AUTHENTICATION (SPOOF PREVENTION) & SESSION SECURITY

"Spoofing" refers to a tactic used by hackers to "steal" the identity of a trusted component of a network in order to gain access.

Dorier's solution prevents spoofing through a rigorous component authentication scheme. Each Multiplex machine in a network has a unique identifier that is communicated to the Portal over a secure link and is otherwise not accessible. New components added to the network go to the Portal for configuration. If the Portal doesn't have a configuration defined for that machine's specific ID, the machine is blocked from joining the network until the administrator accepts the new ID and manually configures the component.

On the client side, a unique token is used to authenticate the endpoint to the Portal instead of the password.

COMPONENT ACCESS AND MALWARE PROTECTION

Dorier's infrastructure components are all Linux based and available as virtual appliances running on VMware or physical appliances running on standard Intel based servers.

To help prevent hackers from accessing the server software itself, our platform leverages the security features of Linux while hardening the system by closing all ports and services that are not relevant or used and disabling access to the underlying system.

Our server components and Multiplex endpoints are locked down appliances or virtual appliances, allowing only Dorier validated software to be applied onto the system thus preventing malicious content from being introduced into the network.
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SECURITY FEATURES 6/7

SECURE FIREWALL TRAVERSAL

"Depending on the specific deployment model, Dorier provides optional methods of secure firewall traversal, enabling organizations to leverage the public network to provide connectivity for end users outside of the firewall without compromising the integrity of the private network or requiring additional expensive equipment.

For implementations where the necessary range of UDP ports are opened on the company network,   the Multiplex endpoints uses industry standard ICE/ STUN to negotiate UDP ports directly with the Router. These same protocols are employed for NAT traversal.

SECURIZING EVENT MEETING ROOM ACCESS

All Dorier endpoints connect through the Router and are not directly accessible from another endpoint. Even on public networks, Dorier endpoints are therefore protected from unauthorized direct access through an IP address. The Media Router architecture inherently provides the endpoint with a layer of security from third party hacking and voyeurism with built-in technology for spoof prevention, such as: encrypted token technology for session security, HTTPS with certificate support on login and TLS with certification for signaling, as mentioned previously in this document.

No matter what Dorier endpoint you use, your Multiplex meeting room is the core of your virtual office. Just like with a physical office, you may want to have an open-door policy for your Multiplex meeting room where anyone with an account on your Portal™ can drop in any time, or you may wish to "close the door" to your Multiplex meeting room and selectively control access. Dorier offers you the flexibility to do both.

If you prefer open door, you don't need to do anything. If you wish to control access, you have the ability to define a PIN for your room and share it only with the people that you want to have access to your room.

Additionally, if you take advantage of "guest linking" to your room you can invite an unregistered user to join your conference room via hyperlink.

Every user has the ability to change their hashed hyperlink to their personal meeting space as frequently as desired.

In addition to the personal virtual meeting room, Dorier also supports a one time use meeting room for scheduled meetings and events. When an event meeting is scheduled a new meeting room is created with unique guest link, PIN code, and meeting ID. The one time event meeting room eliminates conflicts between two disparate meetings taking place in the same meeting room.

This is yet another level of security to provide control of sensitive information and make meetings more convenient.

CONCLUSION
Securing customer communications and private information without inhibiting the value and capability of the Multiplex and Live Collaboration solution is a priority for Dorier.

Dorier delivers a Live Multiplex and visual collaboration platform that leverages industry standard and proven technologies with the goal of securing its user's communications and private information.

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INTERACTIVITY

THE IMPORTANCE OF INTERACTIVITY

People crave for inclusion and hybrid events are no exception. Providing attendees with valuable learning experiences, you make them part of the story.

We design your hybrid event with both your online and physical audience in mind, making sure that you can communicate effectively and engage with both, despite the distance.

EVENT APP

LIVE SURVEY

LIVE POLLING

MODERATED Q&A

LIVE QUIZ

Q&A MODERATED TOOL

QUESTION SUBMISSION

▪ Participants submit their question in the Ask your Question bar

▪ Dialog box confirms the question has been received

▪ Additional users data (name, location) available

QUESTIONS MODERATION

▪ Questions are received on the Q&A moderation tool

▪ Moderators review the questions and approve them

▪ Selected questions appear on the "approved questions" webpage

▪ Question can be displayed on stage and shared on the webcast program and speakers can address them

Live Question
what subset of Asthma have Th 2 - IgE mediated Interleukin release of allergic asthma.

WE HAVE ALREADY CONNECTED THE FOLLOWING CITIES >

AMSTERDAM, ATHENS, BARCELONA, BASEL, BELGRADE, BERLIN, BIRMINGHAM, BORDEAUX, BRUSSELS, BUENOS AIRES, BUSAN, CAPE TOWN, DIJON, DUBAI, DUBLIN, GENEVA, JOHANNESBURG, LILLE, LISBON, LIVERPOOL, LONDON, LJUBLJANA, LYON, MADRID, MARSEILLE, MILAN, MOSCOW, NAIROBI, NANCY, NANTES, NUREMBERG, OSLO, PARIS, PRAGUE, PITTSBURGH, ROME, SANTIAGO DE CHILE, SOFIA, STOCKHOLM, SÃO PAULO, TAIPEI, TOULOUSE, VALENCIA, WARSAW, WASHINGTON DC, ZURICH...

ARE YOU READY
TO LEAVE A MARK ON YOUR INDUSTRY?

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Audio-Visual global solutions