



European Space Agency



VITEC IPTV Solution Transmits Live Video and Data Streams for European Space Agency

The European Space Agency's (ESA) Space Operations Centre (ESOC), located in Darmstadt, Germany, is the central command point for satellite operations. ESOC is home to the engineering teams and employees that control spacecraft while in orbit, manages ESA's global tracking station network, and designs and builds the mission support systems on the ground. At any one time, ESOC operates more than a dozen satellites transmitting live images and data from their missions to its 900 employees.



The VITEC EZ TV IPTV Platform was the exact solution we (ESOC) were looking for. Our day-to-day operations are very demanding and constantly evolving based on new incoming information from our satellite feeds and changing user permissions and roles. With EZTV, we are not boxed into the capabilities of an IPTV product that is not scaled to our needs or robust enough to handle the constant demands of our video streams. VITEC's powerful, reliable, and super quiet encoding appliances, IPTV experience, and customized rights management is seamless and dynamic.

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The Challenge

To manage the evolving needs of missions and monitor incoming data, the operator workstations in the control rooms are equipped with two displays connected to IP encoders to provide critical and time sensitive access to the mission control systems. However, the old system required frequent firmware updates, constant reboots, and loud, distracting fans. In addition, the previous manufacturer no longer supported parts of the system hardware. As a result, the organization experienced ongoing system performance failures.

ESOC needed a reliable, hardware-based IPTV solution designed for mission-critical, 24/7/365 operation that would allow any operator to take the video signal from their workstation and encode it as an IPTV stream available organization-wide so that any operator with the correct permission can access it. Furthermore, it needed to reduce the high service cost of the old IPTV system and dramatically increase the level of support.

The Solution

ESOC representatives took a close look at other mission-critical installations of VITEC's award winning EZ TV IPTV Platform and real-time encoders, including Houston's Johnson Space Center Mission Control, Canadian Space Center, and NASA's Dryden Flight Research Center. The organization determined that VITEC's EZ TV met their demanding video requirements, and additionally provided a sophisticated yet simple-to-operate user rights management solution.

With VITEC's comprehensive platform, all IPTV content on the network can be managed while providing an intuitive viewing experience and worry-free IT administration giving ESOC Administrators full control over which user has access to which content. These users can use their workstations to view video streams in multi-window viewing grids or access a familiar TV-like user experience via set-top box.

The Result

With VITEC's EZ TV IPTV Platform and hardware-based professional end-points, ESOC was able to install a reliable high video quality, low latency streaming system that was quiet, cost-efficient, enabled flexible user access management, and is backed by impeccable manufacturer service and support. The system has provided 24/7 operations since installation with users no longer worried about getting logged out of the system at crucial moments of operation. Additionally, VITEC's IPTV Platform has provided ease of use and simple administration that ESOC had previously been lacking and VITEC's small fanless appliances considerably reduced noise within the facility making it easier to communicate in the working areas. The system also has enabled every operator to move from one screen to another within the ESA facility while maintaining their access rights, without any change in distribution or latency.

Benefits

- Comprehensive solution for high-quality delivery, recording, and management of live and on-demand video over IP networks
- Professional-grade system that ensures 24/7/365 performance for mission-critical applications
- Offers advanced viewing options and collaboration work-flows
- Seamlessly integrates with existing IT environments and can be deployed on all types of networks
- Simple yet powerful centralized administration interface for regulating access to content on every workstation



Industry Leading Video Innovation

VITEC is a market-leading provider of IPTV, Video Streaming and Digital Signage Solutions that help organisations harness the power of video to engage, empower and evolve. VITEC is a pioneer in the design and manufacture of hardware and software for video encoding, decoding, transcoding, archiving and streaming over IP. Our end-to-end video streaming solutions enable customers to capture TV and video content directly from any source and manage its delivery, as channels or within digital signage screens, to any connected device via an existing network.

From corporate, broadcast and venues, to accommodation, government and military, VITEC has global expertise in delivering complex, proAV solutions.

VITEC's award-winning IPTV platform is a powerful suite of services for content management, digital signage, video archiving, and video wall processing. Our encode/decode solutions are 100% hardware based, including PCIe cards with SDK for custom design or OEM for high-performance video systems.

Headquartered in Paris, France, we have a global reach through our offices across the Americas, Europe, Middle East, Africa and Asia Pacific.

Making a difference with green initiatives, VITEC is the first Zero Carbon MPEG company and encourages customers to 'buy GreenPEG' for continued environmental efforts to reduce greenhouse gases.