Supporting Democracy in Action with IP-based Video Contribution

Innovative service provider Cyta partners with Cisco to support live video broadcasts of election coverage.

EXECUTIVE SUMMARY
CYTA
• Industry: Telecommunications Service Provider
• Location: Cyprus
BUSINESS CHALLENGE
• Deliver high-quality video streaming from multiple locations to support national election coverage
NETWORK SOLUTION
• Advanced IP video encoding and decoding solution, running on Cisco end-to-end IP network, enables reliable, high-quality video broadcasting in a variety of formats.
BUSINESS RESULTS
• Flexible, scalable Cisco solution supports delivery of IP video with uality of ervice (QoS) and 99.999 percent service availability

Business Challenge

The leading provider of integrated electronic communications services in Cyprus, Cyta prides itself on delivering rich broadband and mobile communications services and applications to global customers. Making the best of the island's geographical location, Cyta has developed an extensive submarine fiber optic cable network linking Cyprus with neighboring countries such as Greece, Israel, Syria, Lebanon, and Egypt and, by extension, with the rest of the world.

Expectations were high as Cyta prepared to cover parliamentary elections in Cyprus in 2011. To provide vivid, in-depth coverage, the organization required a comprehensive network solution that could handle incoming video from several different sources, and forward it to multiple broadcast studios.

"We needed a solution that would enable us to quickly roll out a contribution network, which we could rely on for our video feeds related to the election in Cyprus," says Sophocles Hadjisophocleous, manager of IT Infrastructure at Cyta.

The network solution would have to be reliable, yet easy to set up and manage. And it would have to scale smoothly and easily to support new technical requirements for future broadcasts.

Network Solution

To deliver the flexibility and consistently high performance that it needed, Cyta deployed a Cisco solution based on the Cisco® DCM IP Video Gateway (DCMG). The Cisco DCMG is a compact 1RU serial digital interface (SDI) video gateway platform that can support full-quality delivery of multiple video signals. Scalable and easy to manage, it is a component of the Origination Suite, an important part of the Cisco Videoscape platform, which lets content and service providers combine a variety of media and applications from any source into an immersive, personalized experience.

> "The Cisco DCMG, together with our end-to-end Cisco network, provided the low latency and high picture quality that we needed to deliver the professional results we required."
>
> **– Sophocles Hadjisophocleous, Manager, IT Infrastructure, Cyta**

Cyta chose the Cisco DCMG not only because the solution met its full range of technical needs, but also because of the company's deep confidence in Cisco.

"Over the years, we have had great cooperation with Cisco people and their local partner, and we trust the technology Cisco represents and produces," says Hadjisophocleous.

For its election coverage, Cyta used the Cisco DCMG to deliver SDI video feeds from six remote locations to five different broadcast studios throughout Cyprus, utilizing the JPEG2000 compression format. The IP output of the Cisco DCMG devices was aggregated in IP switches, and then transported over an end-to-end Cisco IOS Multiprotocol Label Switching (MPLS) network.

To manage all the equipment and network layers of its video delivery solution, Cyta utilized the Cisco ROSA Network Management System (NMS). Designed specifically for contribution, IP television (IPTV), broadcast, and cable networks, Cisco ROSA NMS provides a complete view of the network, and control of every active device in the video delivery system.

"We took advantage of the ROSA NMS alarm monitoring, alarm logging, and configuration management capabilities," says Hadjisophocleous.

Business Results

To be sure its video solution would meet its high expectations for the election broadcast, Cyta worked closely with Cisco's Advanced Services team, which played a critical role in planning and installation. Within a month, Cisco Advanced Services helped ensure that the network was up and running and ready to contribute live video feeds for the election.

The broadcast went smoothly, and the Cisco DCMG performed flawlessly, handling multiple streams of video content. The Cisco MPLS network provided intelligent quality of service (QoS) support to prioritize video traffic and deliver 99.999 percent service availability.

> **PRODUCT LIST**
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> **Video and Content Delivery**
> - Cisco DCM IP Video Gateway
>
> **Routing and Switching**
> - End-to-End Cisco IOS Multiprotocol Label Switching (MPLS) network

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Cisco ROSA NMS provided complete, centralized management for every Cisco DCMG device, which reduced the solution's operational complexity and helped minimize equipment and network failure.

With its election initiative completed, Cyta is now considering ways to take advantage of additional Cisco DCMG features, such as multicast, device redundancy, forward error correction (FEC), and Hitless Merge for dual streaming of video.

"It was important to purchase a future-proof solution that would provide optimal performance during the election, and could also scale to support new capabilities," says Hadjisophocleous. "With our Cisco DCMG, we can leverage our investment to support high definition broadcasts when needed."

With its flexible, scalable solution in place, Cyta is looking forward to continuing to work with Cisco as its infrastructure continues to grow and evolve.

"Our Cisco solutions are an integral part of our end-to-end content network," says Hadjisophocleous. "We are continually building on our strong relationship with Cisco, and they have proven to be an outstanding partner in helping us achieve our business objectives."

For More Information

To find out more about Cisco video and content solutions, visit:
www.cisco.com/en/US/netsol/ns898/networking_solutions_market_segment_solution.html