



Challenges

- A highly scalable, cost-effective, robust service with the ability to support thousands of viewers worldwide
- The solution had to provide high throughput and near-immediate start times for TV-quality broadcast
- The event needed to be viewable regardless of operating system or internet connection speed

Tata Communications' Solution Benefits

- No congestion through Tier-1 global network
- Closest-to-real time replication of live feed across worldwide content supernodes
- Use of HTTP Internet protocol allows use in all environments, enabling higher performance and resilience
- Highly scalable solution, able to support traffic spikes and millions of users worldwide

CASE STUDY – Indian Institute of science

Indian Institute of Science Uses LiveBroadcast to Mark One Hundred Years of Innovation

The Indian Institute of Science (IISc) is a premier post-graduate research institution located in Bengaluru, India, that offers doctoral research programs to over 2,000 students in subjects ranging from engineering to molecular biophysics to management studies. IISc ranks as one of the top institutes for research output and overall academics.

When the IISc Centenary celebrations were being organized to mark one hundred years of leadership in science, and technology, the institute's planning committee needed a cost-effective solution to broadcast the event from Bangalore to a worldwide audience. Specific criteria included global availability, scalability, affordability, and speed of deployment.

The Challenges

IISc had a very simple yet demanding set of requests for the webcasting of this live event. The event needed to be viewable worldwide, accessible on different operating systems and at various Internet connection speeds, and provide a user experience as close to TV-quality as possible.

Tata Communications answered with its full flash video offer: LiveBroadcast™, which matches over 95% of the world's devices connected to the Internet, and is the most widespread client solution available. It required no specific client download, enabling instant maximum viewer user base possible.

The LiveBroadcast solution is part of Tata Communications' Content Delivery Network (CDN) powered by Bit Gravity, which provides a highly scalable carrier-grade platform. The CDN is synched to the world's largest Tier-1 IP network which provides connectivity to 200 countries. Tata Communications' LiveBroadcast works on an architecture that streamlines processes and technology to a single device, significantly reducing the need to invest in expensive hardware.

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How LiveBroadcast™ met IISc's requirements

The committee chose Tata Communications' LiveBroadcast™ solution. The service was especially appropriate for the institute because it eliminated the need for expensive hardware and proprietary software and did not require users to download a special media player to view the live content, making it easy to use.



- **An innovative event-side encoding and publishing technology**
Tata Communications supplied preconfigured premise equipment to IISc that received the video feed via industry-standard protocols. The premise equipment then used proprietary software to process the feed and forward to the closest LiveBroadcast publishing system via the Internet. From this point, the stream was instantly replicated in near real time to each one of Tata Communications' content supernodes. From their own nodes, the users were able to connect and view the event broadcast over the supernode.
- **Leveraging well-known protocols to enable performance, stability and ease of use**
Because the service uses the HTTP Internet protocol, LiveBroadcast works in all environments, even on the publishing side, and is fully compatible with standard security configurations.
- **A network that empowers a real-time experience**
Tata Communications' LiveBroadcast leverages one of the largest Tier 1 networks in the world, extending into 200 countries and territories, with the least hops towards worldwide ISPs. This ensures the lowest delay between reality and broadcasted content.

The IISc Centenary event was broadcast from Bangalore to a global audience, generating 17,000 hits to the video link and delivering stable, live video for the duration of the event. IISc is currently evaluating a long-term partnership with Tata Communications to use LiveBroadcast for broadcasting lectures and talks at the institute.

About Tata Communications

Tata Communications, a member of the \$62.5 billion Tata Group, is a leading global provider of a new world of communications. The emerging markets communications leader leverages advanced solutions capabilities and domain expertise across its global and pan-India network to deliver managed solutions to multinational and Indian enterprises, service providers, and Indian consumers.

Tata Communications' range of services include transmission, IP, converged voice, mobility, managed network connectivity, hosting and storage, managed security, managed collaboration, and business transformation for global enterprises and service providers, as well as Internet, retail broadband, and content services for Indian consumers.

For more information on LiveBroadcast, visit CDN.solution@tatacommunications.com
