TCS develops a digital watermarking proof of concept for a large media conglomerate

Like many media companies, TCS’ client, a large and global media conglomerate, was plagued with the problem of digital piracy. TCS developed a proof of concept for a cost-effective yet accurate digital watermarking solution for the company.

Customer
One of the world leading television and film production/distribution units of a multinational technology and media conglomerate

Industry
Media and Information Services

Offering
Digital Watermarking
About the Client

TCS’ client produces and distributes motion pictures and television programmes. It engages in the acquisition and distribution of home video; operation of studio facilities for production services; development of new entertainment technologies; digital content creation and distribution; development of entertainment products and services for broadband distribution; and distribution of filmed entertainment.

Business Context

The digital revolution has empowered consumers like never before. The internet-savvy consumer however poses problems for copyright holders. Digital piracy is increasing at an alarming rate, abetted by the availability of abundant low cost storage and developments in technology like untraceable peer-to-peer networks.

TCS’ client wished to explore the implementation of a watermarking solution that would let consumers and producers know whether some content is authentic or not, and help the authorities trace illegal copies. It asked TCS to develop a proof of concept (PoC) to find a cost-effective and accurate watermark embedding and detection solution to help it deal with the problem of piracy.

TCS’ Solution

We developed a PoC of a digital watermarking solution that embeds a watermark into the media files during an online sale. To maintain exclusivity, the watermark is based on the customer information provided at the time of sale. When a video is found to be available for download on the internet, our solution can identify the attacks that have been made on the video, and then compare it with the stored template, thereby identifying the pirate. Detection is robust against a combination of multiple attacks, and can be configured according to the type of attacks on the system. In addition, the solution supports most compression formats available. Lastly, our solution is far more cost-effective as compared to competitors’ solutions, since the latter are usually end-to-end solutions for content protection that bundle in sometimes unnecessary services as well.

This solution was developed at TCS Innovation Labs - Hyderabad.
Benefits

When implemented, the digital watermarking solution will provide the company with the following benefits:

- A robust and configurable digital watermarking solution, that offers protection against multiple attacks and supports most compression formats
- Effective management of digital content
- Greater security and broader consumer choice
- Enabling content identification or rights enforcement in digital content distribution
- Easy communication of copyright information and associated rights
- Allowing the introduction of new business models by protecting the copyright stakeholders and giving them the freedom to embrace and balance various management, protection and delivery choices
About Tata Consultancy Services (TCS)
Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

For more information, visit us at www.tcs.com