Video conferencing system on Bangladeshi geostationary satellite

trueconf

Case study

Country:
Bangladesh

Field:
Government

Implementation:
2025

Website:
https://bangladesh.gov.bd/

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Task

The Government of Bangladesh took strategic steps to introduce intelligent technologies for effective internal collaboration and connected its agencies to the Bangladesh Satellite-1, the first geostationary satellite for defense and strategic communications.

The main reason for satellite connection was mission-critical environments where reliance on public internet networks is unacceptable. Organizations managing disaster response, conducting sensitive military or diplomatic communications, operating remote offshore territories, or securing critical infrastructure like power grids and nuclear facilities require absolute reliability and security. For these operations, dedicated satellite communication channels have become indispensable.

Due to the specifics of the interaction in a fully isolated, internet-independent network, the project demanded a solution that would help to establish an autonomous system with sustained high-quality video conferencing.

Solution

To address this challenge, Systems & Services Limited, a network and infrastructure solutions integrator, conducted rigorous testing of various video conferencing solutions and, as a result, partnered with TrueConf. TrueConf Server, an on-premise UC system running on the proprietary protocol, demonstrated exceptional resilience and performance over satellite-based channels and became the core of the state-level video conferencing cloud.

TrueConf Server is built on a SVC architecture to ensure stable operation even on weak communication channels, including satellite ones. The platform dynamically adapts to changing network conditions and automatically selects the resolution of the transmitted frame in accordance with the bandwidth of the channel, as well as the capabilities of the device for each conference participant.

The government-owned private video conferencing cloud based on TrueConf operates autonomously with all the data and confidential information to be stored within the country, reducing the risk of unauthorized access or transfer to third-party servers.

Governmental organizations leverage the system which features role-based rights management and full compliance with stringent information security standards. Users access the service via TrueConf all-in-one desktop and mobile client applications. Apps combine an address book with presence statuses, team messaging, video conferencing, webinars, and collaboration tools to facilitate rapid response to emergency situations and streamline decision making.

TrueConf enables connection of SIP/H.323 devices PBX, and integrates with third-party vendor solutions, ensuring seamless interaction across all government communication environments.

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"Establishing a secure communication network is one of the main strategic objectives of the Government of the country. TrueConf was the only solution that can operate in a closed network and provide high-quality connection and advanced video collaboration capabilities. This transformative initiative signifies the dedication of our companies in embracing technological advancements to deliver secure, real-time connectivity for mission-critical operations."

— Ziaul Hasan
Managing Director of Systems & Services Limited

Results

The integration of TrueConf Server and Bangladesh Satellite-1 set a new standard in secure and resilient communication, addressing the unique challenges in long-distance connectivity and information security.

With TrueConf solution, the Government of Bangladesh created a secure cloud for meetings and remote interaction. The platform guarantees independence and fault tolerance. The unified communications system accelerates the internal processes, fostering efficient decision-making, solving urgent issues, information exchange, and coordination among the remote locations.