

## Centralised Equipment

### Multipoint Control Units (MCUs)

Centralised MCUs are capable of providing Standard Definition (SD) and High Definition (HD) [1] IP based videoconferences. JANET(UK) currently operates 2 Polycom MGC-100TM MCUs and 3 Codian MSE 8000 chassis with SD and HD MCU blades. The equipment is used for both point-to-point and multipoint videoconferences to facilitate IP to IP, IP to ISDN and ISDN to ISDN conferences.

### Gatewaying and Rate Matching

Many videoconferences taking place within the JANET community use different networking protocols and call speeds. To ensure that the majority of videoconferences are supported, IP to ISDN gateways and rate matching capabilities are built-in to the core centralised videoconferencing equipment.

### Gateways

The introduction of IP videoconferencing has been a catalyst for growth in service usage within the JANET community. ISDN videoconferencing is still being used but its growth has not kept up with that of IP.

### Rate Matching (Transcoding)

The ability to support videoconferences with CODECs operating at different call speeds is a key factor to the success of Janet Videoconferencing. Over the last two years the capabilities of IP based H.323 CODECs have increased significantly and the maximum bandwidth capabilities have risen from 768kbit/s to 6Mbit/s. This growth has resulted in organisations deploying CODECs capable of operating at a variety of different call speeds. The maximum speed of IP is currently 4Mbit/s, the maximum currently supported by the Codian equipment.

Another reason for offering rate matching as part of the overall service concerns network connectivity. While some organisations may have CODECs capable of operating at 6Mbit/s, their network connections may not allow it. Organisations with lower bandwidth connections to JANET may therefore stipulate that their videoconferences be limited to suit their network connections.

---

**Source URL:** <https://community-stg.jisc.ac.uk/library/janet-services-documentation/centralised-equipment>

### Links

[1] <http://www.ja.net/services/video/jvcs/hdvideoconferencing.html>