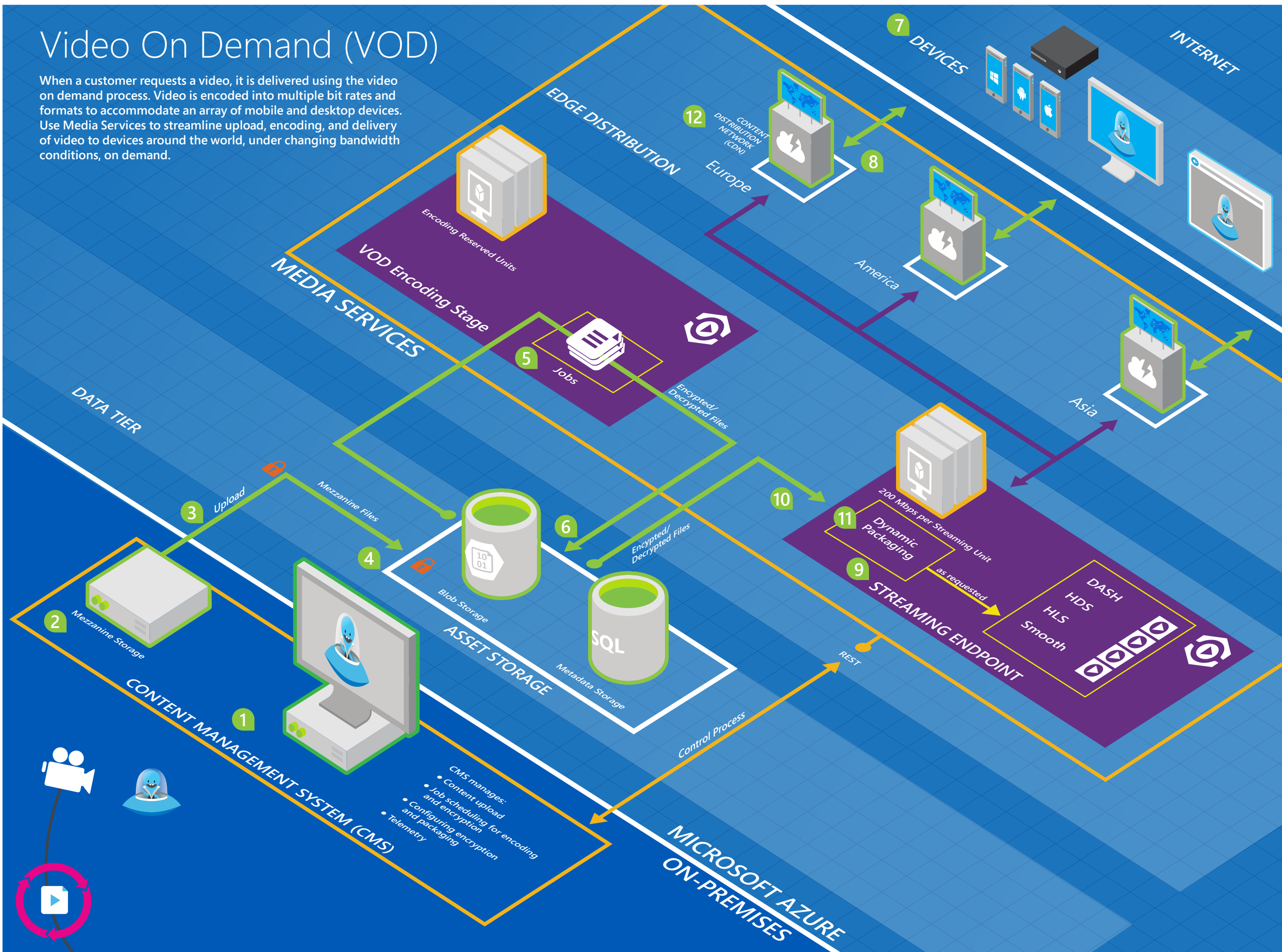


Video On Demand (VOD)

When a customer requests a video, it is delivered using the video on demand process. Video is encoded into multiple bit rates and formats to accommodate an array of mobile and desktop devices. Use Media Services to streamline upload, encoding, and delivery of video to devices around the world, under changing bandwidth conditions, on demand.



Microsoft

- 1 A Content Management System (CMS), such as Ooyala, manages the upload, encoding, and delivery of video assets.
- 2 Video content is produced in a high resolution format that results in large files—several megabytes for a short length. They are commonly known as “mezzanine files.”
- 3 The mezzanine is loaded into blob storage using HTTP or via UDP fast-copy partners like Aspera or Signiant. Along with its metadata, it is now known as an “asset.” A single asset can hold multiple files.
- 4 Assets can be encrypted at upload. They can also be protected using a Shared Access Signature (SAS), which provides only authenticated users access to the storage account.
- 5 Jobs encode the mezzanine assets into compressed formats, for example an MP4 file. You can create multiple parallel jobs using Encoding Reserved Units.
- 6 The result is stored as an asset. A new URL that points to the file is created.
- 7 Devices attempt to consume VOD content via a device specific URL. Devices contain apps built with specific frameworks which can consume the stream.
- 8 If the proper VOD file already exists on the CDN, it's sent to the device. If not, the request is sent to the streaming endpoint. The device may be sent a lower quality stream if bandwidth is low.
- 9 The streaming endpoint starts the process to dynamically package content to the specific streaming format requested by the device.
- 10 The streaming endpoint pulls the requested content (media file and metadata) from Asset storage.
- 11 Content is processed using scalable Reserved Units. Each unit can deliver up to 200 Mbps per second. Additional units start up or shut down based on load.
- 12 The streaming endpoint delivers the requested stream to the CDN, which propagates it to all geographic regions.