



Disk space management

As on any recording device, disk space is a critical resource. MediaSense provides a number of features designed to meet various, sometimes conflicting, space management needs.

MediaSense has two different disk partitions for storing media files: one for recorded media, and one for uploaded media. The former is used for continuous recording and playback of conversations; the latter (which is usually much smaller) is used for ViQ, VoD and VoH. Video voice-mail greetings are stored with recorded media. Both partitions are assigned their minimum size automatically at installation and both may be assigned additional space when needed.

The uploaded media partition must be managed entirely by the administrator. It is the administrator's job to keep track of the amount of space in use and available and manually deleting unneeded videos or adding new storage as required. Be aware that the amount of storage required for a single uploaded .mp4 file does not equal the size of that file. MediaSense automatically converts it upon upload into multiple formats and distributes it to all nodes in the cluster (so that the right video is ready to be played on the right node when a caller requires it). The only way to determine how much space a given video will occupy is to upload that video, wait for it to become ready, and then check the Media Partition Management page to see how much space was used.

The recorded media partition is much more dynamic and can be managed either automatically by MediaSense, or explicitly by a MediaSense API client application.

Recorded media partition

At a high level, two space management operating modes are available:

- Recording priority—for customers who would rather lose an old recording than miss a new one.
- Retention priority—for customers who would rather miss a new recording than lose an old one.

In recording priority mode, MediaSense automatically prunes recordings that age beyond a configurable number of days or when the percentage of available disk space falls to dangerous levels.

Retention priority mode focuses on media retention and MediaSense does not automatically prune recordings for any reason.

In either mode, MediaSense stops accepting new calls when necessary to protect the space remaining for calls that are currently in progress. Affected calls are automatically redirected to another MediaSense recording server (if one is available).

Retention priority behavior

- No automatic pruning takes place.

- When a server enters the warning condition (75%), an alarm is raised.
- When a server enters the critical condition (90%), it redirects new calls.
- When a server enters the emergency condition (99%), it drops active recordings.
- When a server exits a critical condition (drops below 87%), it starts taking new calls.

Recording priority behavior

- Automatic age-based pruning is in effect; recordings older than a configurable number of days are automatically pruned.
- When a server enters the warning condition (75%), an alarm is raised.
- When a server reaches the critical condition (90%), older recordings (even if younger than the age threshold) are pruned to make room for new ones.
- When a server enters the emergency condition (99%), it redirects new calls and drops ongoing recordings.
- When a server exits the an emergency condition (drops below 97%), it starts taking new calls.

Any automatic pruning applies only to raw recording files. An administrative option determines whether MediaSense should automatically delete any .mp4 recordings that were created using the deprecated `convertSession` API, as well as any metadata associated with pruned recordings. If this option is not enabled, an API client must take responsibility for deleting them (.mp4 and .wav files that are created dynamically by the `mp4url` or `wavUrl` mechanisms do get cleaned up automatically by the system, but the API client need not concern itself with them).

Clients also have the option of managing disk usage directly. MediaSense takes progressively more aggressive action when storage levels reach more dangerous levels, but as each stage is entered or exited, it publishes an event to subscribed clients. These events inform the client when space management actions are necessary. The MediaSense API offers a number of options to use for deleting recordings—including an option to issue a customized bulk delete operation that is then carried out without client involvement.

The capability to explicitly delete old recorded sessions is not limited to automatic operations performed by a server-based client. A customer can take a completely manual approach, for example, designing a web page that fetches and displays appropriate meta-information about older recordings and allowing an administrator to selectively delete those that he or she considers to be expendable. Such a web page would use the same API that the server-based client would use.