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- (71) **Applicant:** **NETFLIX, INC.** [US/US]; 100 Winchester Circle, Los Gatos, California 95032 (US).
- (72) **Inventors:** **BAMPIS, Christos G.**; 100 Winchester Circle, Los Gatos, California 95032 (US). **LI, Zhi**; 100 Winchester Circle, Los Gatos, California 95032 (US).
- (74) **Agent:** **CAREY, John C.** et al.; Artega Law Group, LLP, 7710 Cherry Park Drive, Suite T104, Houston, Texas 77095 (US).
- (81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM,

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- (54) **Title:** TECHNIQUES FOR RECONSTRUCTING DOWNSCALED VIDEO CONTENT

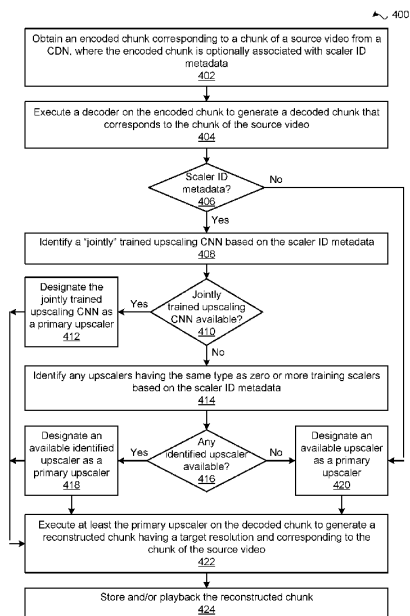


FIGURE 4

- (57) **Abstract:** In various embodiments an endpoint application reconstructs downsampled videos. The endpoint application accesses metadata associated with a portion of a downsampled video that has a first resolution and was generated using a trained downscaling convolutional neural network (CNN). The endpoint application determines, based on the metadata, an upscaler that should be used when upscaling the portion of the downsampled video. The endpoint application executes the upscaler on the portion of the downsampled video to generate a portion of a reconstructed video that is accessible for playback and has a second resolution that is greater than the first resolution.