United States District Court,
S.D. California.

LUCENT TECHNOLOGIES, INC,
Plaintiff.
v.
GATEWAY, INC. and Gateway Country Stores LLC; Microsoft Corp.; and Dell, Inc,
Defendants.

Nos. 02CV2060-B(CAB), 03CV0699-B(CAB), 03CV1108-B(CAB)

March 29, 2006.

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Joseph A. Micallef, Scott M. Border, John L. Newby, Arnold & Porter LLP, Washington, DC, Ryan M. Nishimoto, Arnold & Porter LLP, Los Angeles, CA, for Defendants.

David A. Hahn, Attorney at Law, San Diego, CA, Edward Charles Donovan, Gregory F. Corbett, Karen Michelle Robinson, Kirkland & Ellis LLP, Washington, DC, Elizabeth T. Bernard, James E. Marina, Jordan N. Malz, Robert A. Appleby, Tamir Packin, Kirkland and Ellis, New York, NY, for Plaintiff/Defendants.

ORDER CONSTRUING CLAIMS FOR U.S. PATENT NUMBER 4,910,781

RUDI M. BREWSTER**, District Judge.**

In the above-identified cases, Plaintiff, Lucent Technologies, Inc. ("Lucent"), brought suit against Defendants, Gateway Inc. ("Gateway"); Microsoft Corp. ("Microsoft"); and Dell, Inc. ("Dell"), for infringement of United States Patent Number 4,910,781 (the "'781 Patent"). FN1

FN1. Lucent originally filed two separate patent infringement actions, one against Defendant Gateway (02CV2060), and a second against Defendant Dell (03CV1108). Microsoft intervened in the action filed by Lucent against Gateway. Microsoft also filed a declaratory judgment action against Lucent (03CV0699) and Lucent filed counterclaims for patent infringement against Microsoft in that action. On July 7, 2003, the Court entered an order consolidating these three cases.

Pursuant to Markman v. Westview Instruments, 52 F.3d 967 (Fed .Cir.1995), the Court conducted a hearing to construe the disputed claim terms of the ' 781 Patent. FN2 At the hearing, Lucent was represented by the Kirkland & Ellis law firm, the Dewey Ballantine law firm represented Gateway, the law firm of Fish and Richardson represented Microsoft, and Dell was represented by the Arnold and Porter law firm.

FN2. Plaintiff is only asserting Claims 1-3 and 8-10 of the '781 patent.

The Court, with the assistance of the parties, prepared jury instructions interpreting the terms in the pertinent claims at issue in the '781 Patent. Additionally, a "Glossary" was prepared for terms found in the '781 Patent, considered to be technical in nature and which a jury of laypersons might not understand without a specific definition.

After careful consideration of the parties' arguments and the applicable law, the Court **HEREBY CONSTRUES** all disputed claim terms in the '781 Patent as indicated in the Claim Chart, attached as Exhibit A. Further, the Court **HEREBY DEFINES** all pertinent technical terms as reproduced in exhibit B, attached hereto.

IT IS SO ORDERED

EXHIBIT A-CLAIM CHART

UNITED STATES PATENT NUMBER 4.910.781

VERBATIM CLAIM LANGUAGE	COURT'S CONSTRUCTION
Claim 1	
A method of encoding speech for communication to a decoder for reproduction and said speech comprises frames of speech each having a plurality of samples, comprising the steps of:	A method of encoding speech for communication to a decoder for reproduction and said speech comprises frames of speech each having a plurality of samples, comprising the steps of:
storing a plurality of candidate sets of excitation information each having samples in a table, a group of said sets of excitation information having fewer samples than each of said frames of speech and remaining sets of said sets of excitation information having the same number of samples as each of said frames of speech;	storing a plurality of candidate sets of *excitation information* [*input to a synthesis filter*] each having samples in a table, a group of said sets of *excitation information* having fewer samples than each of said frames of speech and remaining sets of said sets of *excitation information* having the same number of samples as each of said frames of speech;
searching said plurality of candidate sets of. excitation information with a present one of said frames to determine the candidate set of excitation information that best matches said present frame by repeating upon searching each of said group of said candidate sets a portion of each of said group of said candidate sets of excitation information so that each of said group of said candidate sets of excitation information has the same	*searching said plurality of candidate sets of excitation information with a present one of said frames to determine the candidate set of excitation information that best matches said present frame* [*conducting a search of the plurality of candidate sets of excitation information to compare each of the candidate sets of excitation information with a present frame of speech to determine which candidate set best matches the present frame*] by repeating upon searching each of said group of said candidate sets a portion of each of said group of said candidate sets of *excitation information* so that each of said group of said candidate sets of *excitation information* has the same number of samples as said

number of samples as said present frame; and	present frame; and
communicating information to identify the location of the determined candidate set of excitation information in said table for reproduction of said speech for said present frame by said decoder.	communicating information to identify the location of the determined candidate set of *excitation information* in said table for reproduction of said speech for said present frame by said decoder.
Claim 2	
The method of claim 1 wherein said step of searching comprises the steps of:	The method of claim 1 wherein said step of searching comprises the steps of:
storing excitation information in said table as a linear array of samples;	storing *excitation information* in said table as a linear array of samples;
shifting a window through said array equal to the number of samples in said present frame to form each candidate set of excitation information; and	shifting a window through said array equal to the number of samples in said present frame to form each candidate set of *excitation information;* and
repeating a portion of each of said group of said candidate sets of excitation in information to complete each of said group of said candidate sets of excitation information.	repeating a portion of each of said group of said candidate sets of excitation in information to complete each of said group of said candidate sets of *excitation information.*
Claim 3	
The method of claim 2 wherein said remaining sets of said candidate sets of excitation information are filled entirely with samples from said array.	The method of claim 2 wherein said remaining sets of said candidate sets of *excitation information* are filled entirely with samples from said array.
Claim 8	
A method for encoding speech for communication to a decoder for reproduction and said speech comprises frames with each frame represented by a speech vector having a plurality of samples, comprising the steps of:	A method for encoding speech for communication to a decoder for reproduction and said speech comprises frames with each frame represented by a *speech vector* [*a representation of the speech frame as a vector, meaning an ordered collection of samples*] having a plurality of samples, comprising the steps of:
calculating a target excitation vector in response to a present speech vector;	calculating a *target excitation vector* [*a calculated vector that is the target for the codebook searchers to approximate*] in response to a present *speech vector;*
storing a plurality of candidate excitation vectors having samples in an overlapping table, a group of said candidate excitation vectors having fewer samples than said target excitation vector and a remainder of said candidate excitation vectors having the same number of samples as said target excitation vector;	storing a plurality of *candidate excitation vectors* [*potential inputs to a synthesis filter which are tested to pick the best one*] having samples in an *overlapping table* ["overlapping table" *is one where candidate sets are stored as a linear array and are accessed by sliding a window through the linear array*], a group of said *candidate excitation vectors* having fewer samples than said *target excitation vector* and a remainder of said *candidate excitation vectors* having the same number of samples as said *target excitation vector;*
calculating an error value associated with each of said plurality of candidate excitation vectors, said error value being a function of its associated	calculating an error value associated with each of said plurality of *candidate excitation vectors,* said error value being a function of its associated candidate

candidate excitation vector and said target excitation vector and calculating an error value by repeating for each of said group of candidate excitation vectors a portion of each of said group of said candidate speech vectors so that each of said group of candidate excitation vectors has the same number of samples as said target excitation vector thereby compensating for speech transitions such as between unvoiced and voiced regions of said speech;	excitation vector and said *target excitation vector* and calculating an error value by repeating for each of said group of *candidate excitation vectors* a portion of each of said group of said candidate *speech vectors* so that each of said group of *candidate excitation vectors* has the same number of samples as said *target excitation vector* thereby compensating for speech transitions such as between unvoiced and voiced regions of said speech;
selecting the candidate excitation vector whose calculated error value is the smallest; and	selecting the candidate excitation vector whose calculated error value is the smallest; and
communicating information defining the location of the selected candidate excitation vector in said table.	communicating information defining the location of the selected candidate excitation vector in said table.
Claim 9	
The method of claim 8 wherein said step of calculating comprises the steps of:	The method of claim 8 wherein said step of calculating comprises the steps of:
storing an array of samples in said table;	storing an array of samples in said table;
shifting a window through said array equal to the number of samples in said present speech vector to form each of said candidate excitation vectors; and	shifting a window through said array equal to the number of samples in said present *speech vector* to form each of said *candidate excitation vectors;* and
repeating a portion of each of said group of said candidate excitation to complete each of said group of candidate excitation vectors.	repeating a portion of each of said group of said candidate excitation to complete each of said group of *candidate excitation vectors.*
Claim 10	
The method of claim 9 wherein said remainder of candidate excitation vectors are filled entirely with samples accessed sequentially from said array.	The method of claim 9 wherein said remainder of *candidate excitation vectors* are filled entirely with samples accessed sequentially from said array.

EXHIBIT B-GLOSSARY

UNITED STATES PATENT NUMBER 4.910.781

Candidate excitation vectors	potential inputs to a synthesis filter which are tested to pick the best one
Excitation information	input to a synthesis filter
Overlapping table	"overlapping table" is one where candidate sets are stored as a linear array and are accessed by sliding a window through the linear array
Searching said plurality of candidate sets of excitation information with a present one of said frames to determine the candidate set of excitation information that best matches said present frame	conducting a search of the plurality of candidate sets of excitation information to compare each of the candidate sets of excitation information with a present frame of speech to determine which candidate set best matches the present frame
Speech vector	a representation of the speech frame as a vector, meaning an ordered collection of samples
Target excitation vector	a calculated vector that is the target for the code book searchers to approximate

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