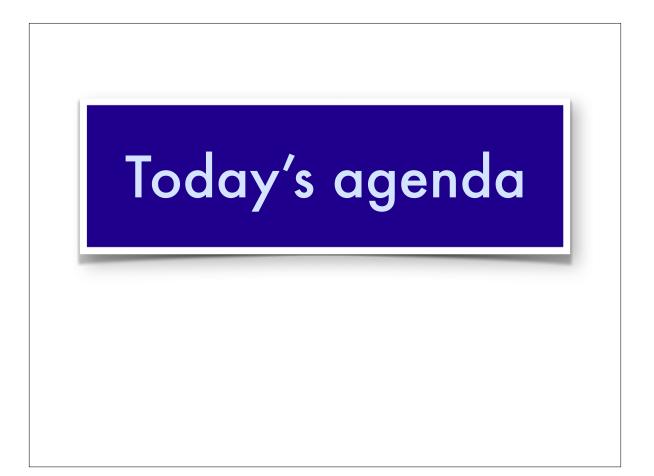


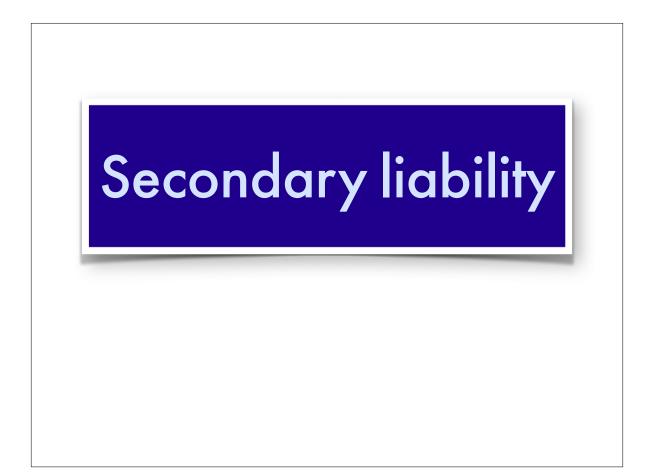


# Recap

- $\rightarrow$  Infringement by equivalents
- $\rightarrow$  Prosecution history estoppel







#### (post-AIA) 35 U.S.C. § 271 — Infringement of Patent \* \* \*

(b) Whoever **actively induces** infringement of a patent shall be liable as an infringer.

(c) Whoever offers to sell or sells within the United States or imports into the United States a **component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process**, constituting a material part of the invention, knowing the same to be **especially made or especially adapted for use in an infringement** of such patent, and **not a staple article** or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

\* \* \*

# Wallace v. Holmes (1871)

- $\rightarrow$  Tech: a new burner for an oil lamp
- → Claim: a new oil lamp with new burner AND standard fuel reservoir, wick tube, chimney
- → Accused product: new oil lamp minus the chimney
- → Court: this is "palpable interference" with the patent rights

# Wallace v. Holmes (1871)

→ How could the patentee have prevented this problem?

# Wallace v. Holmes (1871)

- → How could the patentee have prevented this problem?
  - Just claim the novel burner separately
  - Today: this totally works
  - In 1871: not allowed
- → A lot of indirect-infringement issues could be avoided with better drafting

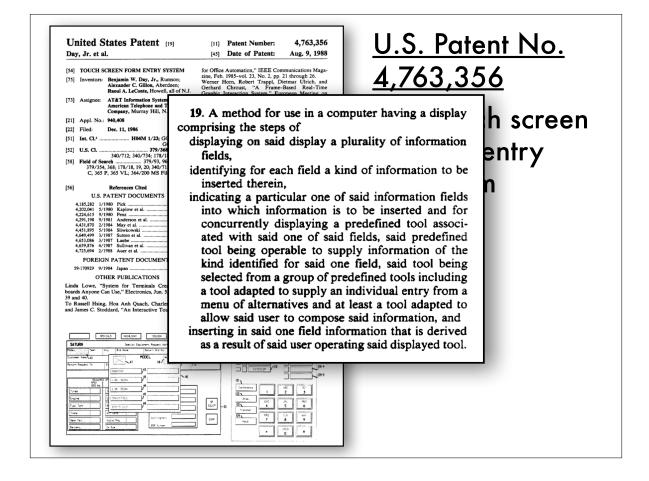
# Wallace v. Holmes (1871)

#### $\rightarrow$ Now codified in § 271(b)–(c):

- § 271(b): inducing infringement
- § 271(c): selling a component of a patented invention, knowing it to be especially made for infringement and not a staple article of commerce

# → Tech: Methods of inputing information without using a keyboard Basically, a pop-up date picker instead of a field where you can type in a date

United States Patent [19]	[11] Patent Number: 4,763,356	U.S. Patent No.
Day, Jr. et al.	[45] Date of Patent: Aug. 9, 1988	
<ul> <li>[54] TOUCH SCREEN FORM ENTRY SYSTEM</li> <li>[75] Inventors: Benjanin W. Day, Jr., Rumson, Jackander C. Gillon, Aberden: I. Rasul A. LcConte, Howell, all of N.J.</li> <li>[71] Assigne: ATAT Information Systems, I. B. American Telephose and Telegraph Company, Murry Hill, N.J.</li> <li>[72] Appl. No: 940,408</li> <li>[73] File: Dec. 11, 1986</li> <li>[74] Int. Cl.<sup>4</sup> Dec. 11, 1986</li> <li>[75] Int. Cl.<sup>4</sup> Dec. 11, 1986</li> <li>[76] J. Starger, Dec. 11, 1986</li> <li>[76] Int. Cl.<sup>4</sup> Dec. 11, 1986</li> <li>[76] Int. Cl.<sup>4</sup> Dec. 11, 1986</li> <li>[76] Int. Cl.<sup>4</sup> Dec. 11, 1986</li> <li>[76] M. Starger, D. Starger, J. Schröder, J. S</li></ul>	<text><text><text><text><text><text><text></text></text></text></text></text></text></text>	<u>4,763,356</u> → "Touch screen form entry system
PECA         NULL         DUADE         DUADE         DUADE           ALTO         Barrier Annan         Duarder Annan         Duarder Annan         Duarder Annan           Status         Duarder Annan         Duarder Annan         Duarder Annan         Duarder Annan           Status         Duarder Annan         Duarder Annan         Duarder Annan         Duarder Annan           Status         Duarder Annan         Duarder Annan         Duarder Annan         Duarder Annan           Status         Duarder Annan         Duarder Annan         Duarder Annan         Duarder Annan           Status         Duarder Annan         Duarder Annan         Duarder Annan         Duarder Annan           Status         Duarder Annan         Duarder Annan         Duarder Annan         Duarder Annan           Status         Duarder Annan         Duarder Annan         Duarder Annan         Duarder Annan           Status         Duarder Annan         Duarder Annan         Duarder Annan         Duarder Annan           Status         Duarder Annan         Duarder Annan         Duarder Annan         Duarder Annan		



→ When is this claim infringed?

#### Lucent v. Gateway

#### $\rightarrow$ When is this claim infringed?

- Under § 271(a), infringement requires making, using, selling, offering for sale, or importing the patented invention
- But here, the patented invention requires a <u>user</u> to use the method
- So only when a user actually uses it!

→ Why let Lucent sue Gateway (really, Microsoft) under § 271(c) instead of suing the actual infringers?

#### Lucent v. Gateway

→ Why let Lucent sue Gateway (really, Microsoft) under § 271(c) instead of suing the actual infringers?

- It's much more efficient to go after the seller
- And if Microsoft knows about the patent, it's morally culpable

→ What's required to find for Lucent?

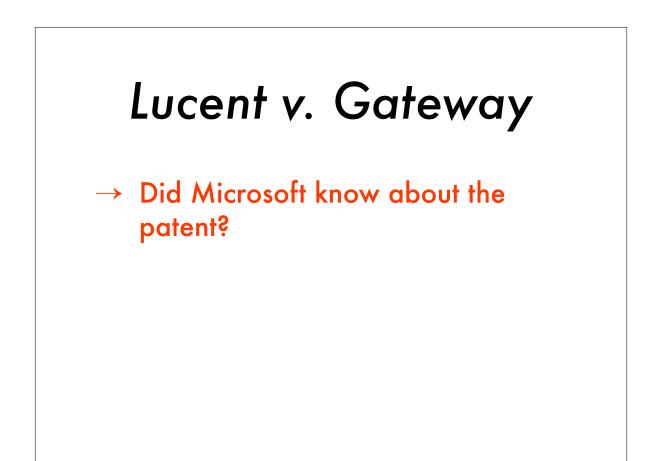
#### Lucent v. Gateway

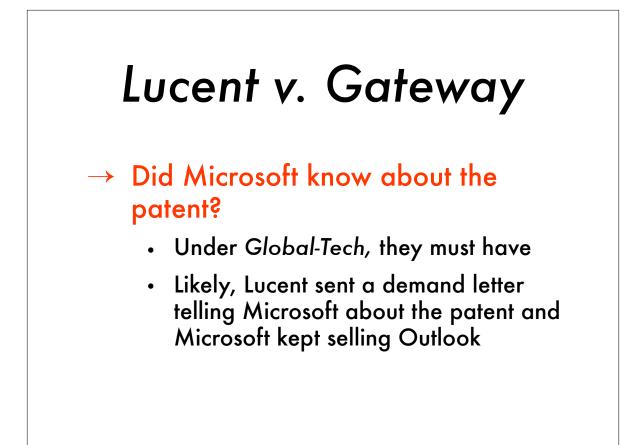
#### → What's required to find for Lucent?

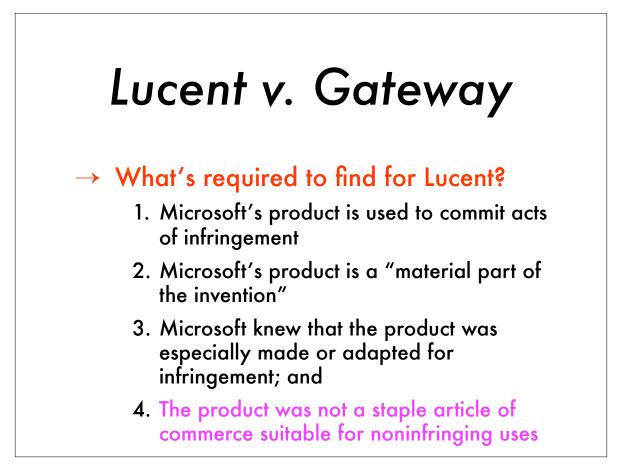
- 1. Microsoft's product is used to commit acts of infringement
- 2. Microsoft's product is a "material part of the invention"
- Microsoft knew that the product was especially made or adapted for infringement; and
- 4. The product was not a staple article of commerce suitable for noninfringing uses

#### → What's required to find for Lucent?

- 1. Microsoft's product is used to commit acts of infringement
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→ But isn't Microsoft Outlook capable of substantial noninfringing uses?

#### Lucent v. Gateway

→ But isn't Microsoft Outlook capable of substantial noninfringing uses?

• Yes!

- But the date picker isn't
- With software, you have to look at the feature, not the entire product, or § 271(c) liability would basically never apply

# Global-Tech v. SEB

- → § 271(b): whoever "actively induces infringement" is liable
- $\rightarrow$  Question: what mental state is required?
  - Actual knowledge
  - Willful blindness
  - Recklessness
  - Deliberate disregard of a known risk
  - Should have known
  - Negligence
  - Strict liability

# Global-Tech v. SEB

- → Federal Circuit: Deliberate disregard of a known risk is sufficient
- → Supreme Court: No, <u>actual knowledge</u> is required
- → However: <u>Willful blindness</u> is a form of actual knowledge
  - Requires: subjective belief that there is a high probability of a patent, and deliberate action to avoid learning about it

# Global-Tech v. SEB

→ What was the inducement?

# Global-Tech v. SEB

#### → What was the inducement?

- Here: encouraging others to sell infringing deep fryers
- In general: actively and knowingly aiding and abetting

#### CR Bard v. Advanced Cardiovascular Sys.

- → Bard patent: method of using a catheter in coronary angioplasty
- → ACS product: only catheter approved by FDA for use in coronary angioplasty
- $\rightarrow$  Claims:
  - § 271(b) inducing doctors to infringe
  - § 271(c) selling catheter for infringing use

#### CR Bard v. Advanced Cardiovascular Sys.

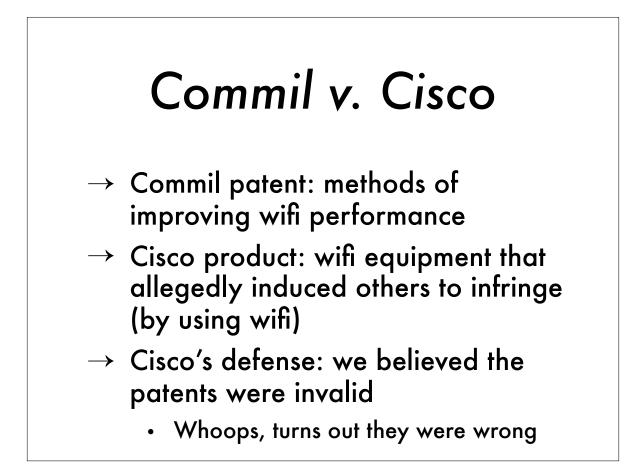
 $\rightarrow$  Problem: three ways to use the catheter

- (1) all side openings in aorta: not infringing
- (2) all side openings in coronary artery: infringing
- (3) some in each place: maybe infringing
- → So, a jury could conclude there are substantial noninfringing uses
  - If so, no § 271(c) contributory infringement

#### CR Bard v. Advanced Cardiovascular Sys.

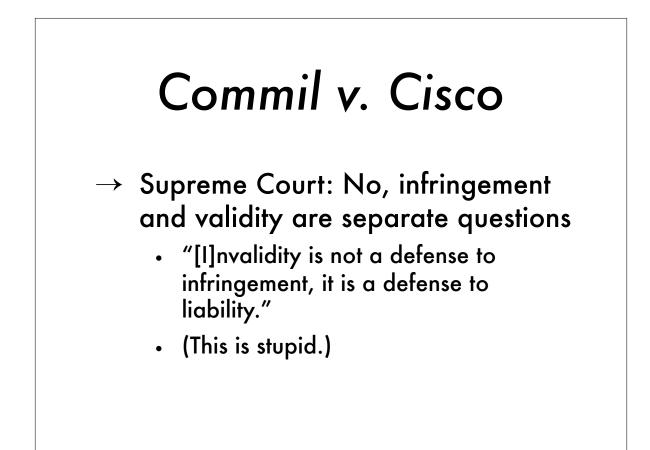
#### $\rightarrow$ § 271(b) induced infringement:

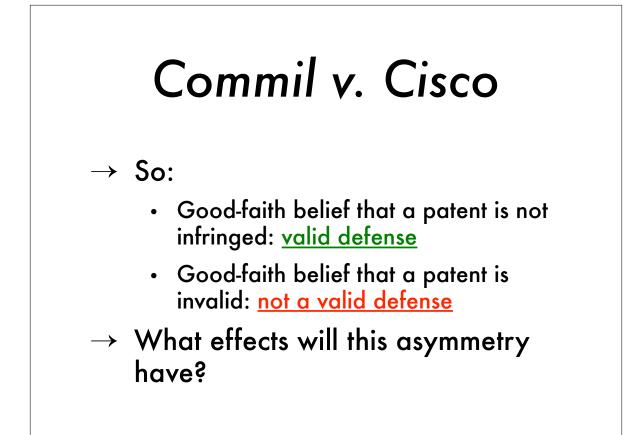
- Requires actively and knowingly aiding and abetting another's direct infringement
- If instructions taught doctors how to infringe, then ACS is liable <u>even if</u> <u>there are other uses</u>

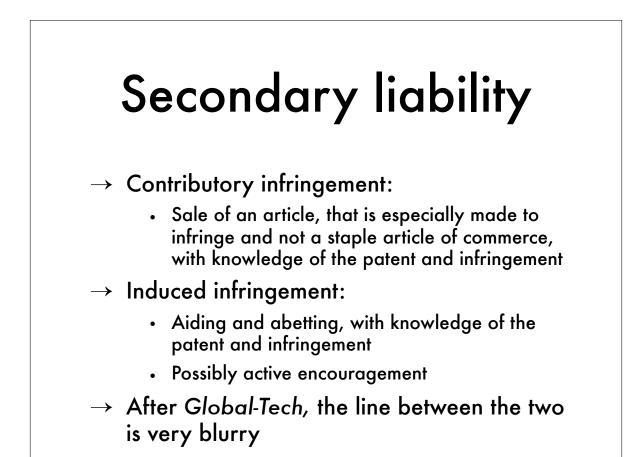


# Commil v. Cisco

- → Legal question: Is a good-faith belief that the patents are invalid a defense?
  - Global-Tech: "[W]e now hold that induced infringement ... requires knowledge that the induced acts constitute patent infringement."
  - Federal Circuit: "It is axiomatic that one cannot infringe an invalid patent." Therefore, it is a valid defense







# Divided / joint infringement

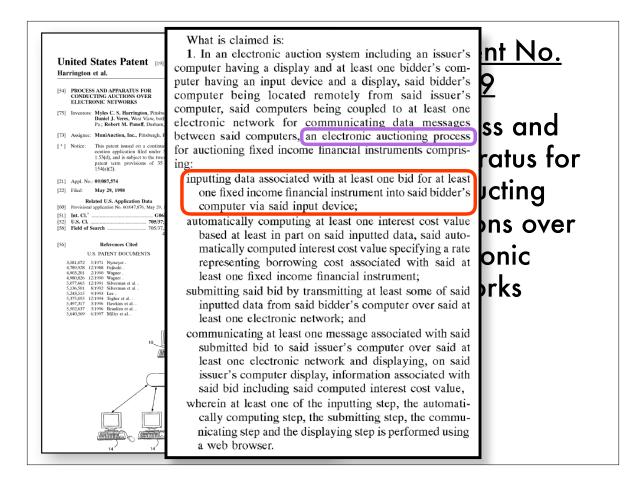
#### (post-AIA) 35 U.S.C. § 271 — Infringement of Patent

(a) Except as otherwise provided in this title, whoever without authority **makes**, **uses**, **offers to sell**, **or sells any patented invention**, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent. \* \* \*

# Muniauction v. Thomson

- → Muniauction patent: process for auctioning municipal bonds online
- → Issue: Does Thomson's auction system infringe?

Harrington et al.           [54]         PROCESS AND APPARATUS FOR	[45]         Date of Patent:         *Dec. 12, 2000           \$774,176         61998 Cance         705/36           \$774,176         61998 Cance         705/36	6,161,099
CONDUCTING AUCTIONS OVER ELECTRONIC NETWORKS [75] Inventors: Myles C. S. Harrington, Fithwargh; [75] Inventors: Myles C. S. Harrington, Fithwargh; [73] Assigne: MuniAuction, Inc., Pithwargh, Pa. [74] Notice: This patert issued on a continued pros- cention application field under 37 CFR 154(0), 2015 Subject to the twary year paint (term provisions of 35 U.S.C. 154(0), 2015 Subject to the twary year paint (term provisions of 35 U.S.C. 154(0), 2015 Subject to the twary year paint (term provisions of 35 U.S.C. 154(0), 2015 Subject to the twary year Provisional application Nat. [60] Provisional application Nat. [61] Provisional application No. 600(417,870, May 29), 1997. [72] U.S. CL. 7085/71 (2015) [73] Int. CL, 7085 (2015) [74] Subject Nat. 2017 Subject Nat. [75] Nat. CL, 7085 (2015) [76] Statistical Stat	5.74.288     6.1098     Ginaberg     705.36       5.74.279     705.37     705.37       5.74.279     11999     Ginaberg     705.37       5.857.167     11999     Ginaberg     705.37       5.857.167     11999     Ginaberg     705.37       5.857.167     11999     Ginaberg     705.36       5.957.502     11999     Lawrence     455.31       5.915.202     61999     Lawrence     455.31.2       OTHER PUBLICATIONS       Landes, David V., Aug. 16, 1996     Latter with attachments.       Intermed con next page.       Primary Examination-Ferice W. Smolyre       Autors, Agency or Firm-Nicos de Vanderby PC.       Lift colspan="2">Colspan="2">Colspan="2">Colspan="2">Ginaberg       Autors, Agency or Firm-Nicos de Vanderby PC.       Lift colspan="2">Colspan="2"Col	→ Process and apparatus for conducting auctions over electronic networks
5,136,501 8(1992 Silverman et al 5,243,515 9(1993 Lae . 5,375,055 12(1994 Togher et al 5,497,317 3(1996 Beaulieu et al 5,502,637 3(1996 Beaulieu et al 5,640,569 6(1997 Miller et al	determine the winner and notify the winner over the network, and display selected auction results to bidders and observers over the network. 67 Claims, 15 Drawing Sheets	



"With respect to the '099 patent, the parties do not dispute that **no single party performs every step of the asserted claims**. For example, at least the inputting step of claim 1 is completed by **the bidder**, whereas at least a majority of the remaining steps are performed by **the auctioneer's system** (e.g., Thomson's BidComp/ Parity® system). The issue is thus **whether the actions of at least the bidder and the auctioneer may be combined** under the law so as to give rise to a finding of direct infringement by the auctioneer."

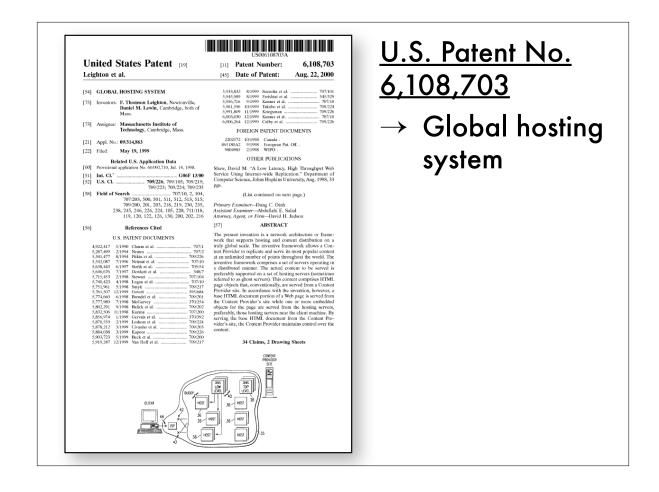
Muniauction v. Thomson, slip op. at 15–16

### Muniauction v. Thomson

- → Court: A single party must perform, or be responsible for, every step of the method claim to infringe
  - "[W]here the actions of multiple parties combine to perform every step of a claimed method, the claim is directly infringed <u>only if</u> <u>one party exercises 'control or direction' over</u> <u>the entire process</u> such that every step is attributable to the controlling party, i.e., the 'mastermind.'" - Muniauction (per J. Gajarsa)

## Limelight v. Akamai

- → Akamai patent: content distribution network (CDN) for internet traffic
- → Limelight product: Limelight performs most steps; leaves "tagging" and "serving" steps to customers to perform



		lo.
United Star Leighton et al.	e i i recontent denvery method, comprising.	10.
[54] GLOBAL HOS	distributing a set of page objects across a network of	
[75] Inventors: F. TI Dani Mass	content servers managed by a domain other than a	
[73] Assignce: Mass Tech	content provider domain, wherein the network of con-	osting
<ul> <li>[21] Appl. No.: 09/31</li> <li>[22] Filed: May</li> </ul>	tent servers are organized into a set of regions;	9
[22] Price: May Related U [60] Provisional applica	for a given page normally served from the content pro-	
[51] Int. Cl. <sup>7</sup> [52] U.S. Cl	vider domain, tagging at least some of the embedded	
[58] Field of Search 707 709	objects of the page so that requests for the objects	
238, 245 119	resolve to the domain instead of the content provider	
[56] Re U.S. PA	domain;	
4,922,417 5/1990 5,287,499 2/1994 5,341,477 8/1994 5,542,087 7/1996	in response to a client request for an embedded object of	
5,638,443 6/1997 5,646,676 7/1997 5,715,453 2/1998 5,740,423 4/1998	the page:	
5,751,961 5/1998 5,761,507 12/1999 5,774,660 6/1998	resolving the client request as a function of a location	
5,777,989 7/1998 5,802,291 9/1998 5,832,506 11/1998 5,856,974 1/1999	of the client machine making the request and current	
5,870,559 2/1999 5,878,212 3/1999 5,884,038 3/1999 5,903,723 5/1999	Internet traffic conditions to identify a given region;	
5,919,247 12/1999	and	
	returning to the client an IP address of a given one of	
	the content servers within the given region that is	
	likely to host the embedded object and that is not	
	overloaded.	

# Limelight v. Akamai

- → Federal Circuit, en banc: There is no direct infringement (§ 271(a)) but there is induced infringement (§ 271(b))
  - No party directs or controls all steps, so no direct infringement has occurred
  - Inducement requires direct infringement
  - But "infringement" can mean something different for the two sections — infringement for purposes of § 271(b) can exist when multiple parties cooperate, even if the steps aren't attributable to one party

# Limelight v. Akamai

#### → Supreme Court: this is stupid

- "The Federal Circuit's analysis fundamentally misunderstands what it means to infringe a method patent." (Ouch.)
- Induced infringement requires, well, infringement, and under Muniauction, that requires one defendant responsible for all elements of the claim

# Akamai v. Limelight

- → The Supreme Court invited the Federal Circuit to reconsider Muniauction, so they did...
  - ...and changed the law just enough to find Limelight infringing

### Akamai v. Limelight

- $\rightarrow$  Now, to infringe under § 271(a):
  - One party must perform, direct, or control all elements, OR
  - Two or more parties in a joint enterprise can be charged with each others' acts:
    - \* agreement
    - \* common purpose
    - community of pecuniary interest
    - \* equal right of control

# Akamai v. Limelight

→ Are Limelight and its customers a joint enterprise?

### Akamai v. Limelight

- → Are Limelight and its customers a joint enterprise?
  - No no common purpose, community of pecuniary interest, or equal right of control

# Akamai v. Limelight

→ Does Limelight direct or control its customers' actions?

### Akamai v. Limelight

- → Does Limelight direct or control its customers' actions?
  - Yes it requires customers to take certain steps for the system to work
  - But the same thing was true of Thomson's auction system!

# Means-plusfunction claims

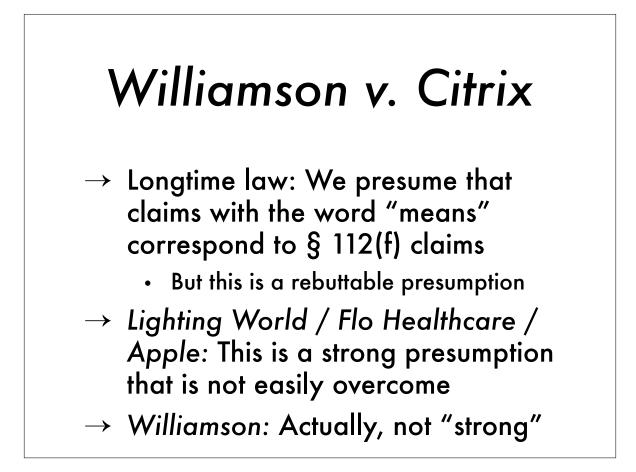
#### (post-AIA) 35 U.S.C. § 112 — Specification \* \* \*

#### (f) Element in Claim for a Combination.—

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

### Williamson v. Citrix

- → Tech: distributed-classroom system with a "distributed learning control means"
- → Issue: How do we decide if a claim limitation is means-plus-function and so governed by § 112(f) / § 112¶6?



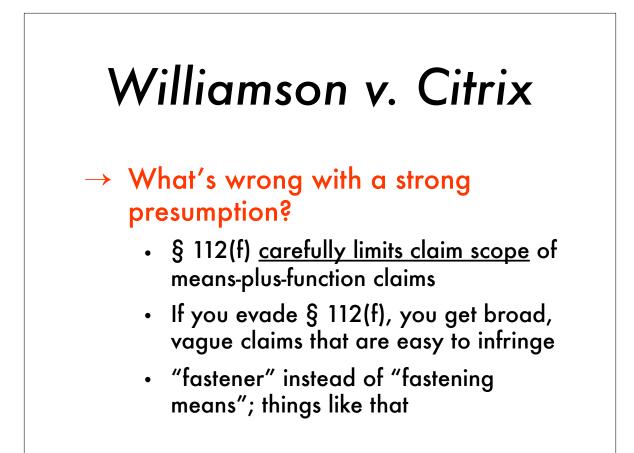
### Williamson v. Citrix

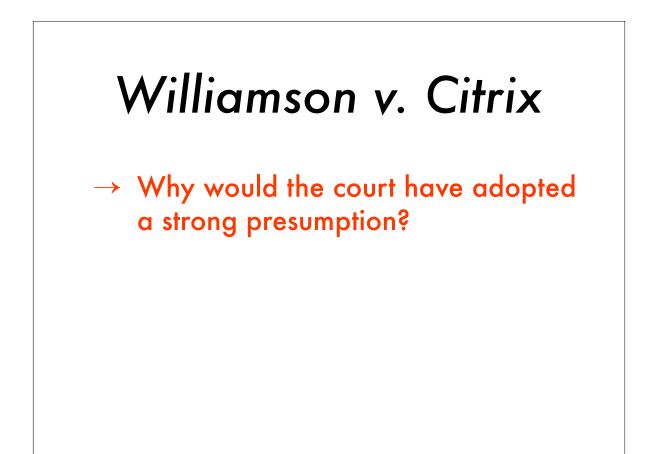
→ What's wrong with a strong presumption?

### Williamson v. Citrix

# → What's wrong with a strong presumption?

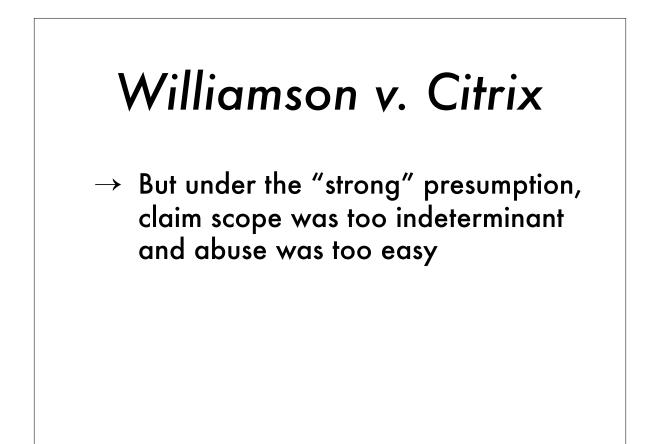
 "It ... has resulted in a proliferation of functional claiming unterthered to § 112, para. 6 and free of the strictures set forth in the statute." (Nard 626)







- → Why would the court have adopted a strong presumption?
  - The goal is to figure out what the patent applicant intended the claim to cover
  - Bright-line rules about claim scope make the system more predictable
  - Abuse is subject to §§ 102, 103, 112



### Williamson v. Citrix

- → Once construed as a § 112(f) claim, the Williamson patent becomes invalid as indefinite
  - No corresponding structure for the functions named in the claim limitation
  - One of the functions: "coordinating the operation of the streaming data module"
  - Only disclosed structures: UIs of possible interfaces, not algorithms

### Odetics v. Storage Tech

- → One of the quirks of § 112(f) infringement: Two kinds of equivalents
  - Identical function, equivalent way and result: Literal infringement (per § 112)
  - Equivalent function, way, and result: Infringement by equivalents
  - Both are possibilities

# Odetics v. Storage Tech

→ Why does this difference matter?

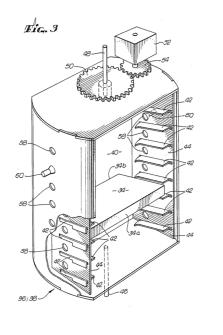
### Odetics v. Storage Tech

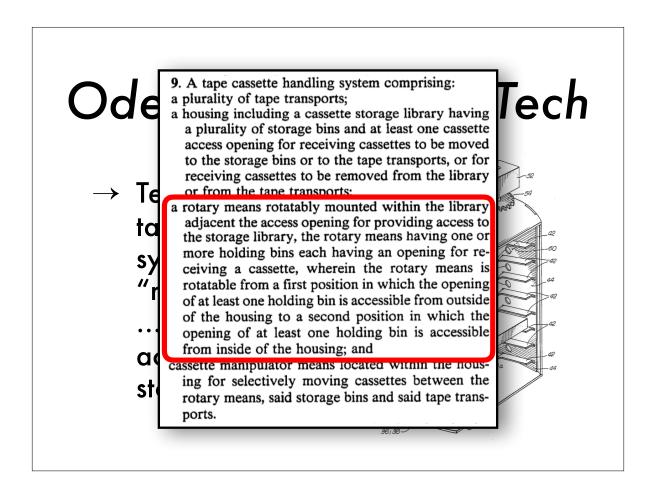
#### $\rightarrow$ Why does this difference matter?

 Literal infringement is not subject to prosecution history estoppel – even when it has an equivalents step under § 112(f)

### Odetics v. Storage Tech

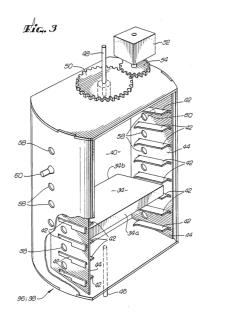
→ Tech: Robotic tape storage system with a "rotary means ... for providing access to the storage library"





## Odetics v. Storage Tech

- → Structure described in the spec: rod, gear, and rotary loading and loading mechanisms
- → Accused device: cam followers attached to bottom of the array



### Odetics v. Storage Tech

- → Identical function?
- $\rightarrow$  Substantially the same way?
- $\rightarrow$  Substantially the same result?



