



Training Academy Session # 18

Divided Infringement: Who is Responsible?

John D. Simmons
Dennis J. Butler
Sean M. Douglass

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Session Overview

- Patent Infringement (in general)
 - Direct patent infringement
 - Indirect patent infringement
- Divided Patent Infringement
- Akamai v. Limelight
- Patent claim drafting
- Takeaways

Patent Infringement

35 U.S.C.S. § 271

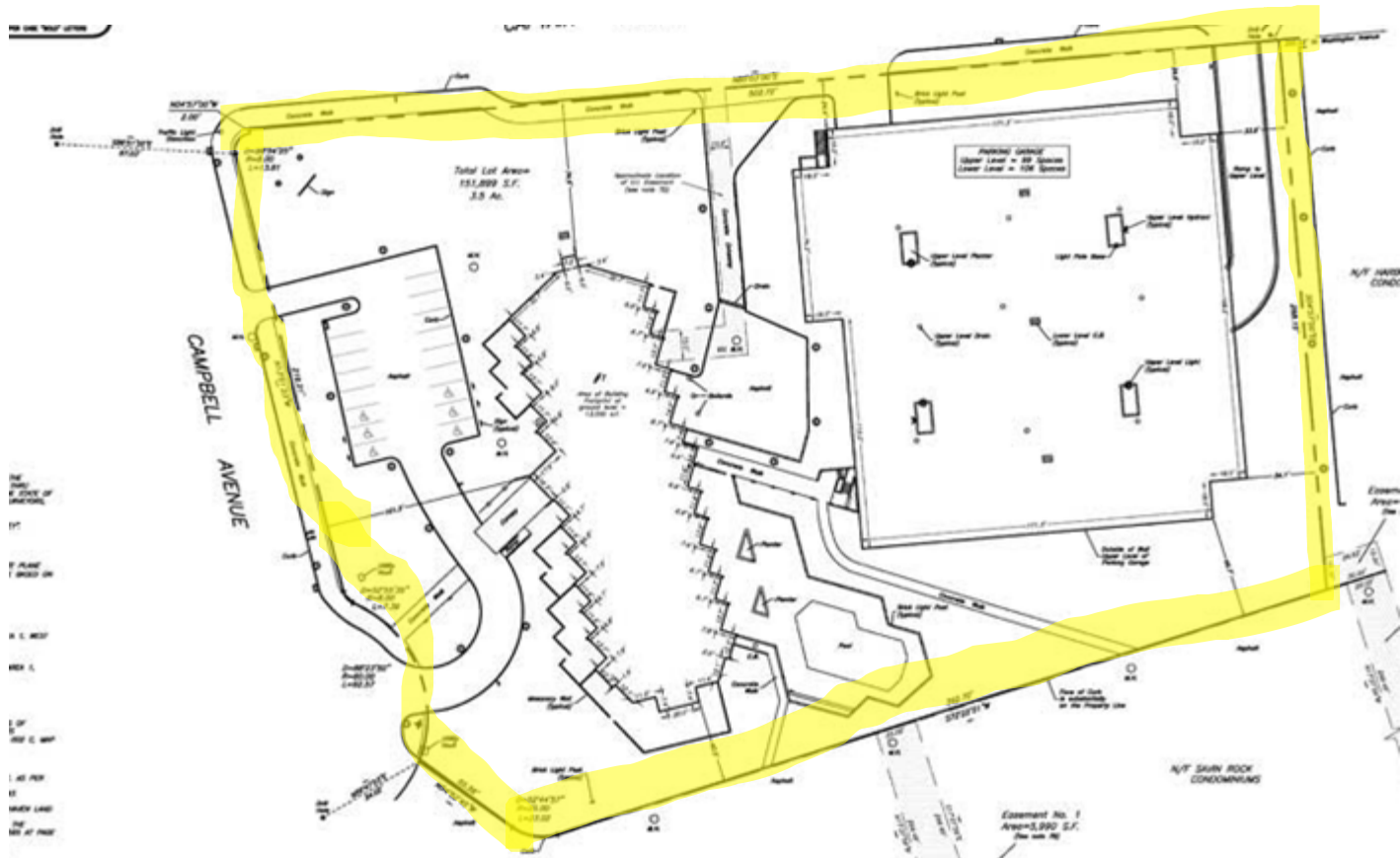
(a) Except as otherwise provided in this title [35 USCS §§ 1 et seq.], whoever without authority makes, uses, offers to sell, or sells any **patented invention**, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.

To literally infringe a patent, one must make, use, offer to sell, sell, or import into the U.S., each and every element of the **claimed invention (i.e., the patented invention)**.

Direct Patent Infringement

For a method or process patent, **direct infringement** under § 271(a) occurs where all steps of a claimed method are **performed by or attributable to a single entity**.

Direct Patent Infringement



Direct Patent Infringement

6,108,703

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methods may be carried out in hardware, in firmware, or in more specialized apparatus constructed to perform the required method steps.

Further, as used herein, a Web “client” should be broadly construed to mean any computer or component thereof directly or indirectly connected or connectable in any known or later-developed manner to a computer network, such as the Internet. The term Web “server” should also be broadly construed to mean a computer, computer platform, an adjunct to a computer or platform, or any component thereof. Of course, a “client” should be broadly construed to mean one who requests or gets the file, and “server” is the entity which downloads the file.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is set forth in the following claims:

1. A distributed hosting framework operative in a computer network in which users of client machines connect to a content provider server, the framework comprising:
a routine for modifying at least one embedded object URL

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mechanism for maintaining overall traffic for a given embedded object within specified limits.

11. The hosting framework as described in claim 10 wherein the gating mechanism comprises:

5 means for determining whether a number of requests for the given embedded object exceeds a given threshold; and

means responsive to the determining means for restricting service of the given embedded object.

10 12. The hosting framework as described in claim 11 wherein the restricting means comprises means for serving an object that is smaller than the given embedded object.

13. The hosting framework as described in claim 11 wherein the object is a ticket that allows a client to receive the given embedded object at a later time.

14. A method of serving a page supported at a content provider server, the page comprising a markup language base document having associated therewith a set of embedded objects, each embedded object identified by a URL, comprising the steps of:

Direct Patent Infringement

We claim...

34. A content delivery method, comprising:

(a) distributing a set of page objects across a network of content servers;

(b) tagging at least some of the embedded objects of the page; and

(c) in response to a client request for an embedded object of the page, resolving the client request.

Indirect Patent Infringement

Induced Infringement Under 35 U.S.C.S. § 271(b)

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

Contributory Infringement Under 35 U.S.C.S. § 271(c)

(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.

Indirect Patent Infringement

We claim...

34. A content delivery method, comprising:

(a) distributing a set of page objects across a network of content servers;

(b) tagging at least some of the embedded objects of the page; and

(c) in response to a client request for an embedded object of the page, resolving the client request.

Divided Infringement

What is divided patent infringement?

Divided patent infringement of a method or process claim occurs when more than one party separately performs some steps of the method or process claim, and another party separately performs other steps of the method or process claim.

Divided Patent Infringement

We claim...

34. A content delivery method, comprising:

(a) distributing a set of page objects across a network of content servers;

(b) tagging at least some of the embedded objects of the page; and

(c) in response to a client request for an embedded object of the page, resolving the client request.

Divided Infringement

The “single-actor rule”

Direct infringement under § 271(a) occurs where all steps of a claimed method are **performed by *or attributable* to a single entity**.

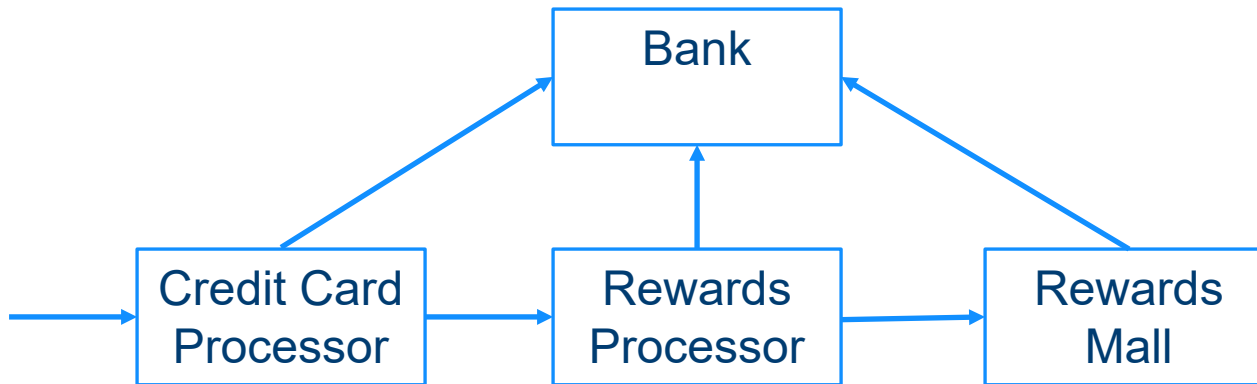
However, an entity will be held responsible for others' performance of method steps in two sets of circumstances:

- (1) where that entity **directs or controls** others' performance
- (2) where the actors form a **joint enterprise**.

Divided Infringement

Credit Card Rewards

TuitionFund v. Sun Trust Bank *et al.*



Akamai Tech., Inc. v. Limelight Networks, Inc.

Plaintiffs: Akamai Technologies, Inc. & Massachusetts Institute of Technology

Defendant: Limelight Networks, Inc.

Patent-in-Suit: US Patent No. 6,108,703

- ‘703 patent directed to a network architecture or framework that supports hosting and content distribution on a truly global scale.
- ‘703 patent provided decentralized hosting of website content that enables delivery of content on an efficient basis without unnecessarily burdening network resources.

Akamai Tech., Inc. v. Limelight Networks, Inc.

Timeline:

- May 19, 1999 – Application resulting in ‘703 patent filed;
- August 22, 2000 – ‘703 patent issues;
- May 23, 2006 – Complaint filed in District of Massachusetts alleging infringement of ‘703 patent;
- Feb. 11-29, 2008 – 14 day jury trial resulting in finding of claims 19, 20, 21 and 34 of the ‘703 patent & \$40M+ of damages;
- June 30, 2008 – Post-Trial Motions;
- July 14, 2008 – Fed. Circuit decides Muniauction (532 F3d 1318) – Infringer must control or direct 3rd party for divided infringement so that every step is attributable to infringer

Akamai Tech., Inc. v. Limelight Networks, Inc.

Timeline Continued:

- April 24, 2009 – D Mass. grants JMOL of non-infringement based on Muniauction;
- Dec. 20, 2010 – Fed Cir. (629 F.3d 1311) affirms finding of non-infringement based on Muniauction;
- Aug. 31, 2012 – *En Banc* Fed. Cir. (629 F.3d 1301) reverses finding infringement under induced infringement (271(b));
- June 2, 2014 – US Supreme Court reverses finding under induced infringement because no direct infringement but states, “the Federal Circuit will have the opportunity to revisit the § 271(a) question ...” (572 US 915)

Akamai Tech., Inc. v. Limelight Networks, Inc.

Timeline Continued:

- May 13, 2015 – Fed. Cir. (786 F.3d 899) affirms non-infringement of ‘703 patent based on Muniauction;
- August 13, 2015 – En Banc Fed Cir. (797 F.3d 1020) reverses and reinstates the Feb. 2008 jury verdict; and
- July 1, 2016 – Final Judgment of infringement of the ‘703 patent and \$50M+ in damages.

Akamai Tech., Inc. v. Limelight Networks, Inc., 797 F.3d 1020 (2015)

En Banc Fed. Circuit decides to avail themselves of the opportunity to “set forth the law of divided infringement under 35 USC § 271(a) and unanimously finds that Limelight directly infringes the ‘703 patent.

En Banc Fed. Circuit reverses D. Mass.’s non-infringement decision and determines Limelight infringes the ‘703 patent under divided infringement.

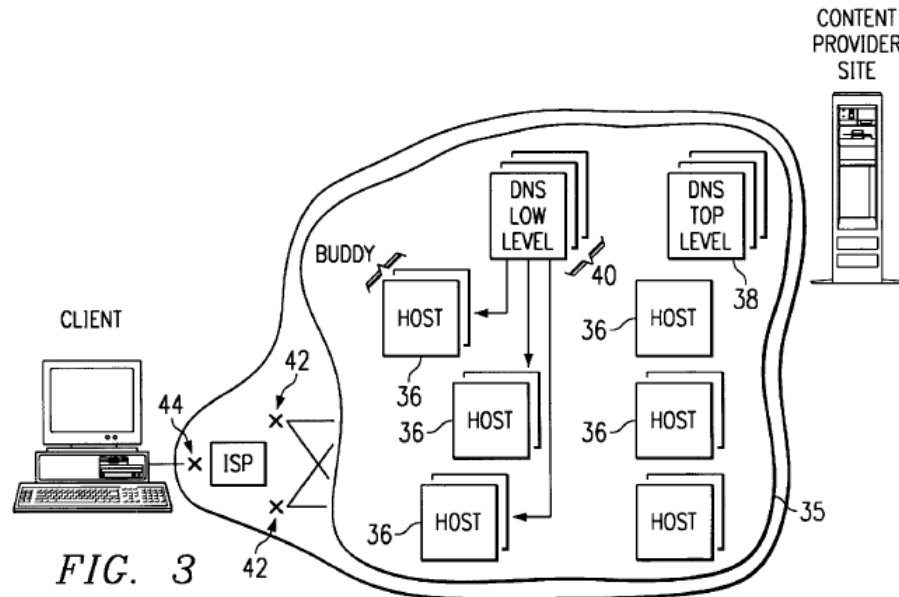
Akamai Tech., Inc. v. Limelight Networks, Inc., 797 F.3d 1020 (2015)

2 Key Claim Steps Performed by Limelight's Customers:

1. “tagging the embedded objects of the page so that requests for the page objects resolve to the domain instead of the content provider domain” and “tagging at least some of the embedded objects of the page so that requests for the objects resolve to the domain instead of the content provider domain”
2. “serving the given page from the content provider domain” and “serving at least one embedded object of the given page from a given content server in the domain instead of from the content provider domain”

Akamai Tech., Inc. v. Limelight Networks, Inc., 797 F.3d 1020 (2015)

Claimed Steps are Performed by Limelight's Customers:



Akamai Tech., Inc. v. Limelight Networks, Inc., 797 F.3d 1020 (2015)

Direct patent infringement by divided infringement under 35 U.S.C.S. § 271(a) is not limited solely to principal-agent relationships, contractual arrangements, or joint enterprises, and **a court considers whether all method steps can be attributed to a single entity**

§ 271(a) - ... whoever ... makes, uses, offers to sell, or sells any patented invention ... during the term of the patent therefor, infringes the patent.”

Akamai Tech., Inc. v. Limelight Networks, Inc., 797 F.3d 1020 (2015)

“Where more than one actor is involved in practicing the steps, a court must determine whether the acts of one are attributable to the other such that a single entity is responsible for infringement.”

In this situation, the Court must determine if there is a relationship between Limelight and its customers such that the acts of the customers are attributable to Limelight, therefore making Limelight responsible for infringement of the ‘703 patent.

Akamai Tech., Inc. v. Limelight Networks, Inc., 797 F.3d 1020 (2015)

The court will hold an entity responsible for others' performance of method steps in two sets of circumstances:

- where that entity directs or controls others' performance; and
- where the actors form a joint enterprise

Akamai Tech., Inc. v. Limelight Networks, Inc., 797 F.3d 1020 (2015)

Limelight directs or controls its customer's performance:

- Limelight conditions participation in the content delivery network on its customer's performance of the tagging and serving method steps
- All customers must sign a contract requiring the customer to tag and serve content.
- All customers identify/tag content to enable the content to be delivered by the Limelight network
- Limelight is not responsible for failures in the network if customer's server is down and fails to serve the content.

Akamai v. Limelight

Direct patent infringement by divided infringement under 35 U.S.C.S. § 271(a) is not limited solely to principal-agent relationships, contractual arrangements, or joint enterprises, and **a court considers whether all method steps can be attributed to a single entity**

Akamai v. Limelight

The court will hold an entity responsible for others' performance of method steps in two sets of circumstances:

- where that entity directs or controls others' performance; and
- where the actors form a joint enterprise

Akamai v. Limelight

- Where that entity directs or controls others' performance – Two Prong Test:
 - 1) *conditions* participation in an activity or receipt of a benefit" upon others' performance of one or more steps of a patented method, and
 - 2) "*establishes the manner or timing* of that performance."

Decisions Since Akamai

- [Eli Lilly & Co. v. Teva Parenteral Meds., Inc., 845 F.3d 1357, 1365 \(Fed. Cir. 2017\)](#)
 - Patent at issue directed to the administration of a chemotherapy drug after pre-treatment with folic acid and vitamin B12
 - Defendant created a generic version of the chemotherapy drug
 - Physicians administered chemo drug and vitamin B12
 - Patients self-administered folic acid *with guidance* from physicians and physicians guided by product literature
 - HELD: Defendant liable for induced infringement
 - Conditioning performance not limited to legal obligations

Decisions Since Akamai

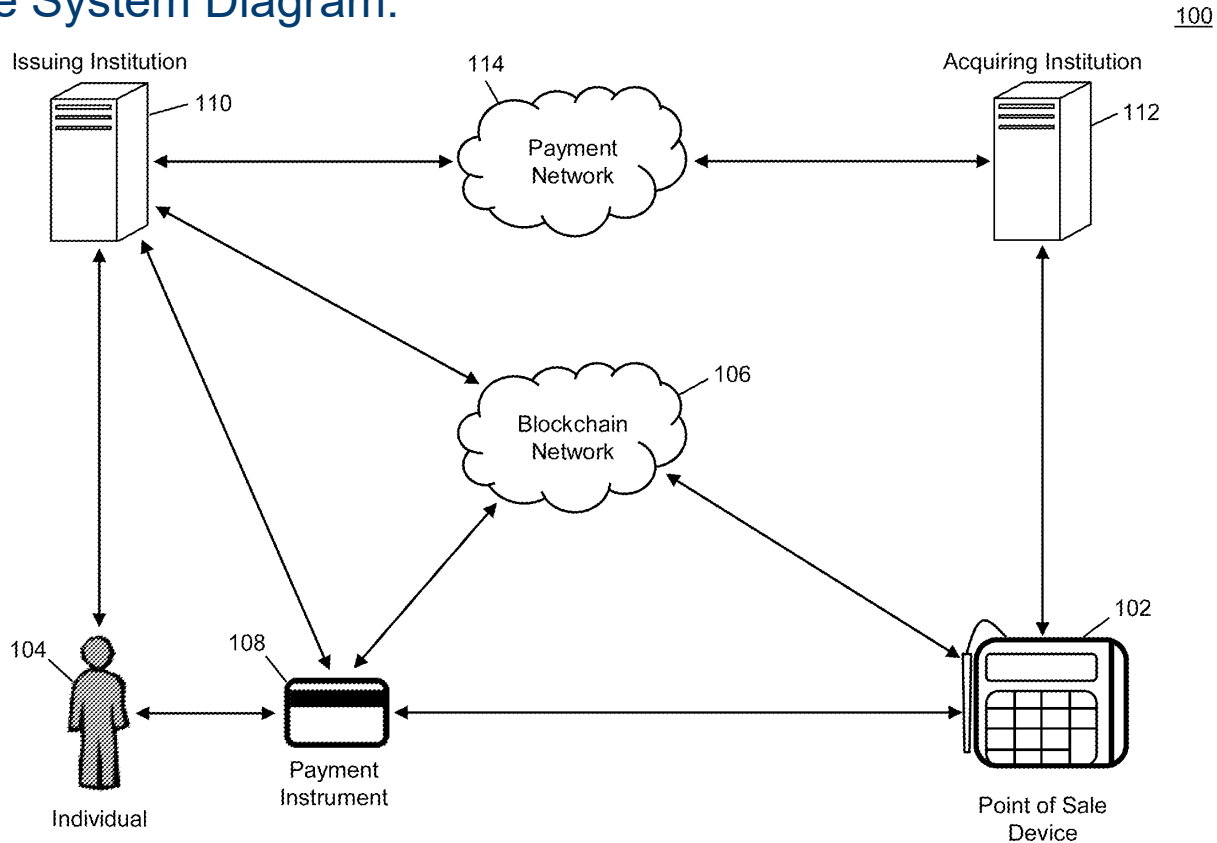
- [Travel Sentry, Inc. v. Tropp, 877 F.3d 1370, 1376 \(Fed. Cir. 2017\)](#)
 - Patents at issue directed to methods of improving airline luggage inspection
 - Plaintiff (alleged infringer) administers locks that permit the TSA (per a Memorandum of Understanding) to unlock, inspect, and relock luggage – TSA performs last two steps of claims
 - HELD: District Court’s judgment of noninfringement vacated
 - Benefit is TSA agents can unlock locked luggage and Plaintiff has provided passkeys and training to ID Plaintiff’s locks
 - The MOU outlined the procedure for the TSA to follow

Patent Drafting/Prosecution Tips

- Disclosure:
 - Ask if one device possible?
 - Identify where/when point of novelty happens
 - Particular Device
 - Specific Machine Part
 - Specific Method Step
- Claims
 - Draft claim from single perspective, e.g., the identified point of novelty
 - Eliminate unnecessary or commonly known steps when possible
- Written Description
 - Summary – claims in prose
 - Detailed description of every actor/device
 - Identify when actors/devices can be combined
 - Method description – draft from single perspective

Patent Drafting/Prosecution Tips

Example System Diagram:



Patent Drafting/Prosecution Tips

- Example Multi-Actor Payment Transaction Claim:

A transaction method, the method comprising:

- transmitting, by an issuing institution, payment credentials to a user computing device;

- receiving, by the user computing device, the payment credentials;

- transmitting, by a point-of-sale device, transaction data to the user computing device;

- receiving, by the user computing device, the transaction data from the point-of-sale device;

- transmitting, by the user computing device, the payment credentials and the transaction data to the point-of-sale device;

- receiving, by the point-of-sale device, the payment credentials and the transaction data;

- transmitting, by the point-of-sale device, the payment credentials and the transaction data to a payment network;

- transmitting, by the payment network, an authorization request to the issuing institution. . .

Patent Drafting/Prosecution Tips

- Example Single Actor Payment Transaction Claim:

A transaction method, the method comprising:

~~transmitting, by an issuing institution, payment credentials to a user computing device;~~

receiving, by a ~~[[the]]~~ user computing device, a ~~[[the]]~~ payment credentials from an issuing institution;

~~transmitting, by a point-of-sale device, transaction data to the user computing device;~~

receiving, by the user computing device, ~~[[the]]~~ transaction data from a ~~[[the]]~~ point-of-sale device;

transmitting, by the user computing device, the payment credentials and the transaction data to the point-of-sale device;

~~receiving, by the point-of-sale device, the payment credentials and the transaction data;~~

~~transmitting, by the point-of-sale device, the payment credentials and the transaction data to a payment network;~~

~~transmitting, by the payment network, an authorization request to the issuing institution.~~

Patent Drafting/Prosecution Tips

- Example Payment Transaction Method Drawing

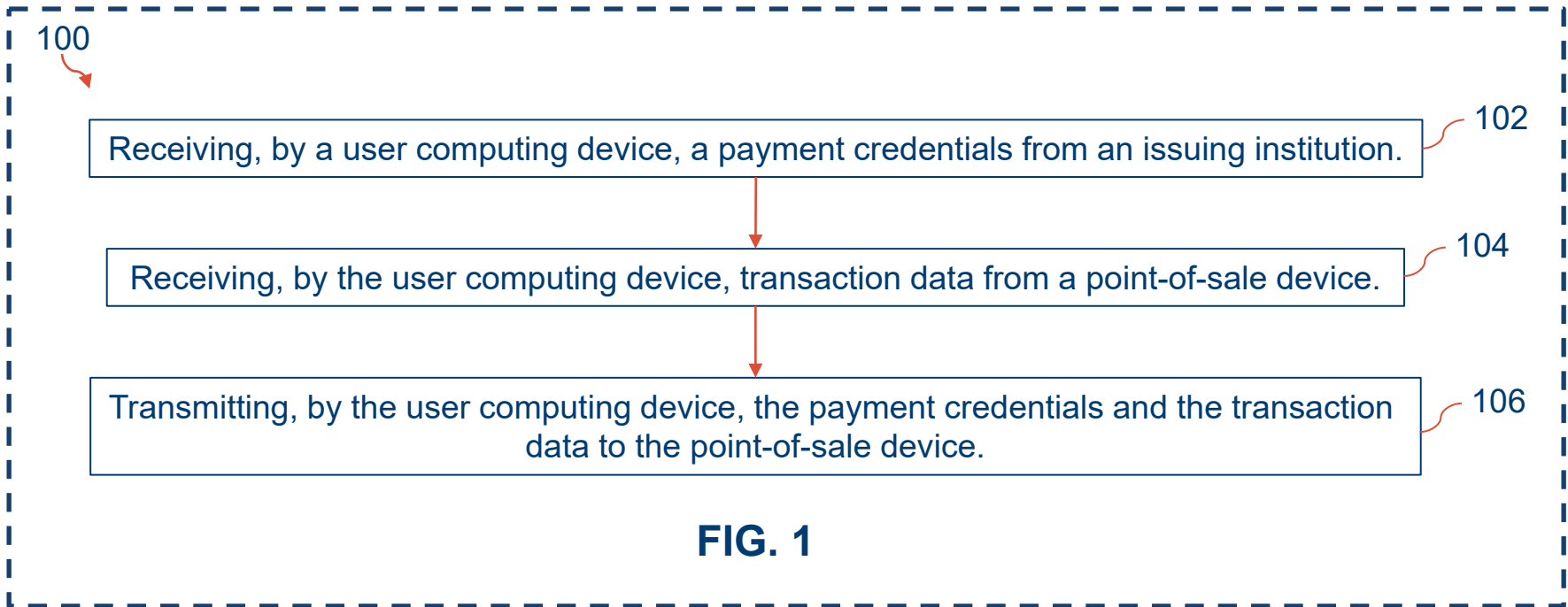
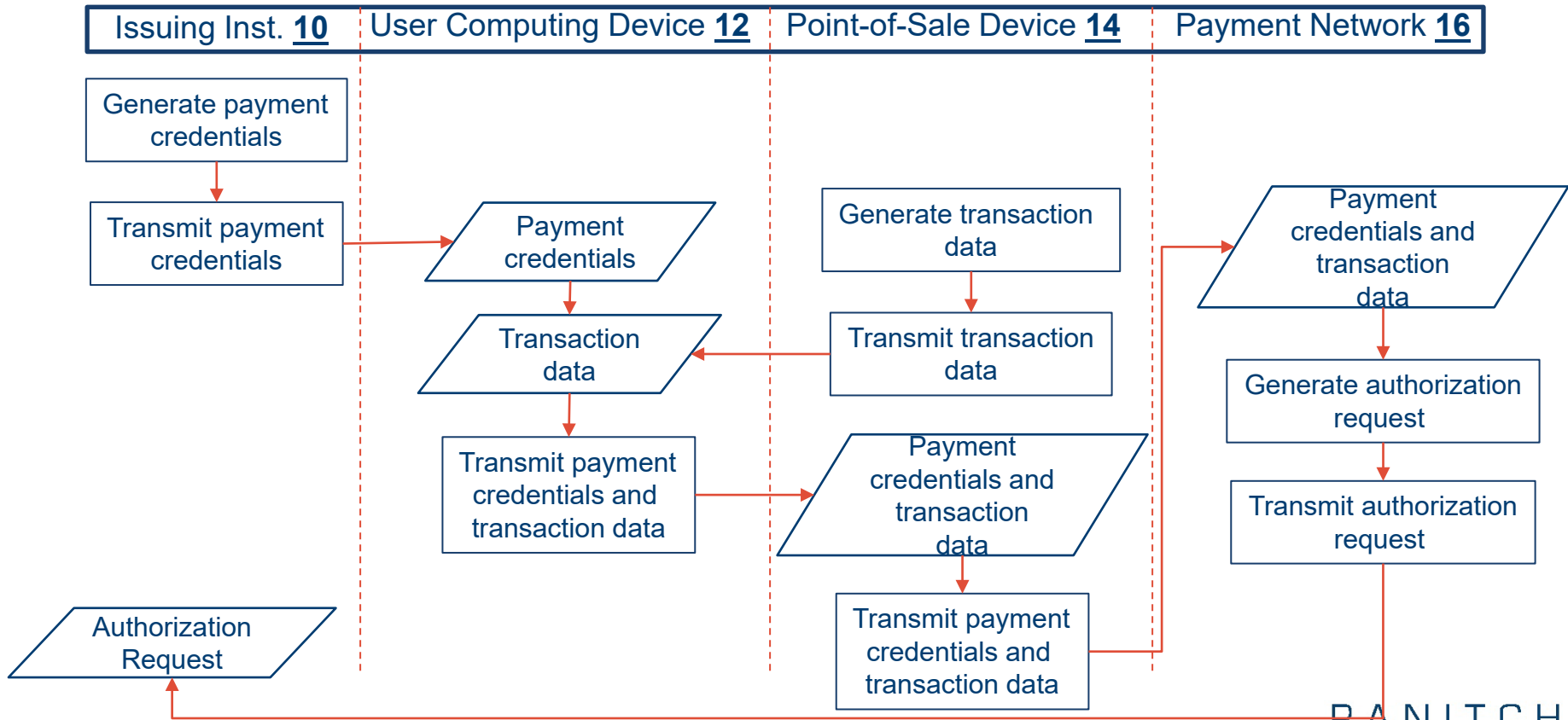


FIG. 1

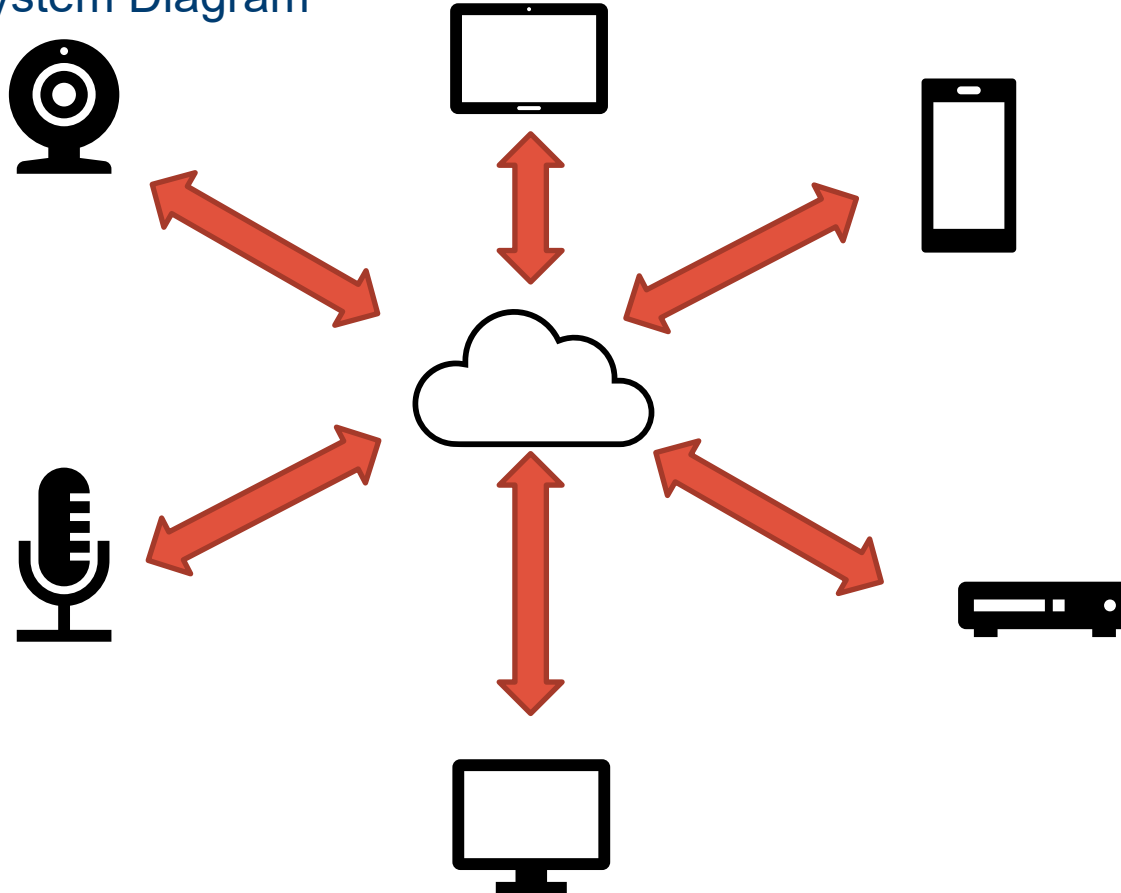
Patent Drafting/Prosecution Tips

- Example Payment Transaction Process Drawing



Patent Drafting/Prosecution Tips

Example System Diagram



Patent Drafting/Prosecution Tips

- Example Multi-Actor Claim:

A system for environment temperature control, the system comprising:

- a temperature control device;

- a mobile device; and

- a network device, wherein the network device is located in a fixed position in a user premise;

- the mobile device configured to:

- determine a user's position, wherein the user's position is determined based on a location of the mobile device in relation to the network device,

- transmit the user's position to the temperature control device;

- repeat the determining and transmitting of the user's position at pre-determined time intervals,

- the temperature control device configured to:

- receive the user's positions from the mobile device, and

- generate a temperature setpoint schedule based on the user's positions

Patent Drafting/Prosecution Tips

- Example Single-Actor Claim:

A temperature control comprising:

storage containing:

processor-executable instructions; and

a processor configured to execute the instructions, wherein the instructions are configured to cause the processor to control an environmental control system by:

receiving a plurality of the user positions from a mobile device,

wherein the plurality of the user positions are based on a location of the mobile device in relation to a network device located in a user premise, and

generating a temperature setpoint schedule based on the plurality of the user positions

TAKEWAYS

- Performance of every step of a patent claim by a single actor is not necessarily needed for infringement
 - Inducement
 - Party relationships
 - Knowingly outsourcing one step will not avoid infringement
- Keep in mind who/what is performing each step of the claims
 - Who are the actors in the real world?
- Draft claims from a single-actor perspective when possible

Speakers



Dennis J. Butler
(302) 394-6006
dbutler@panitchlaw.com



Sean M. Douglass
(215) 965-1232
sdouglass@panitchlaw.com



John D. Simmons
(302) 394-6001
jsimmons@panitchlaw.com



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