Lex Machina
Patent Trial and Appeal Board (PTAB) 2015 Report

Lex Machina

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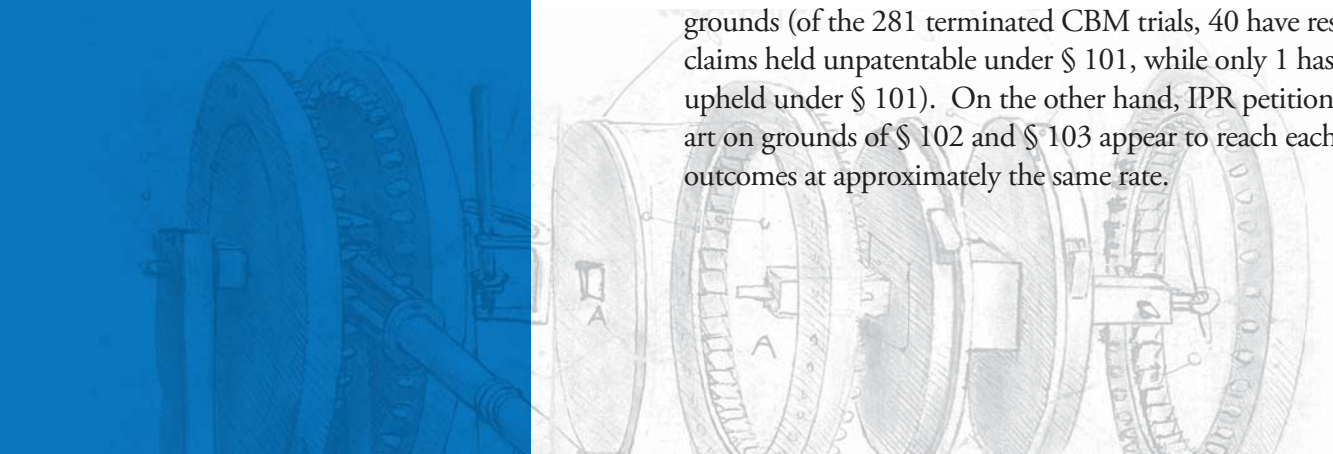
Published January 2016

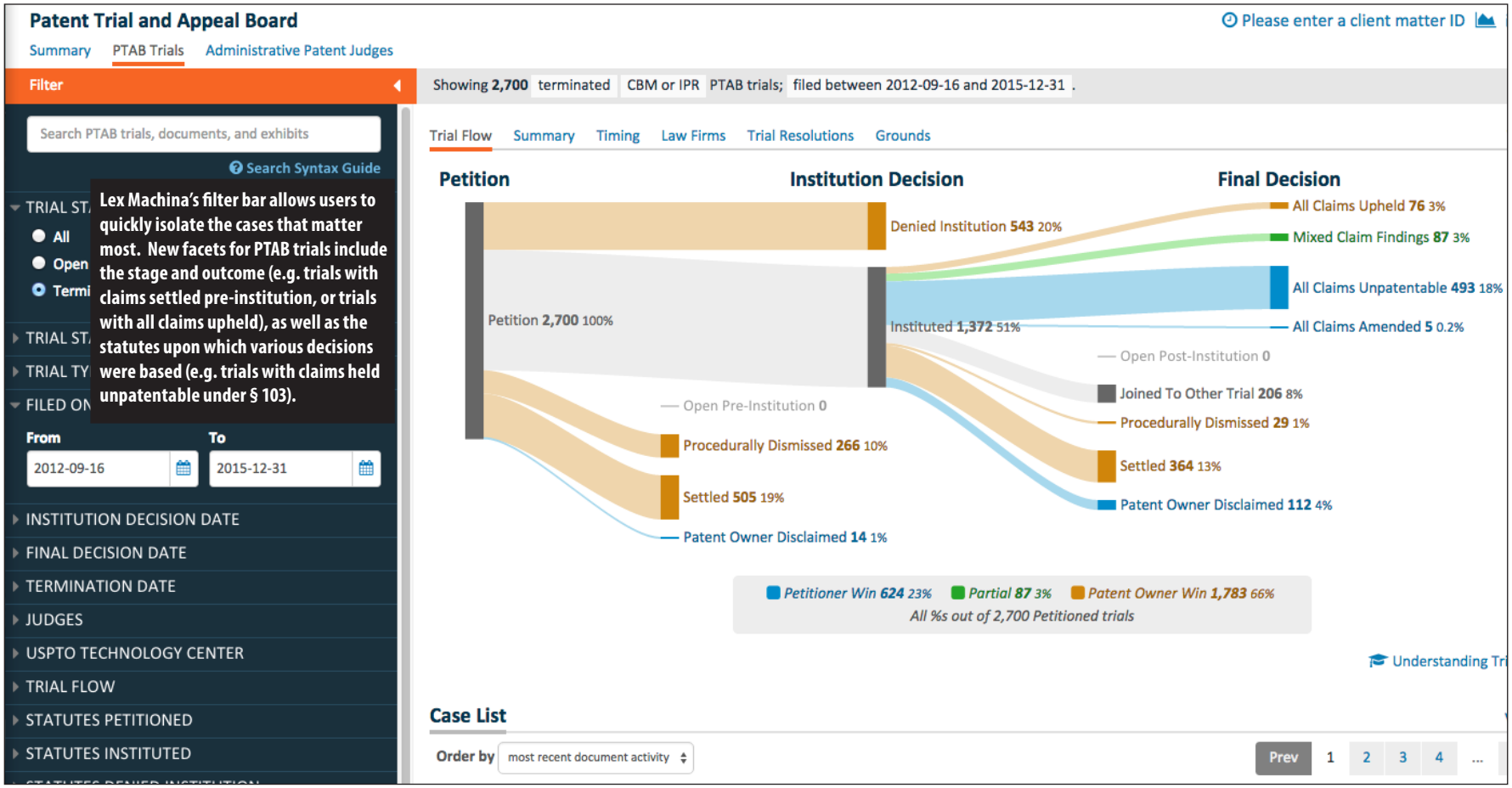
Executive Summary

In December, Lex Machina announced improved analytics for the Patent Trial and Appeal Board (PTAB). This report utilizes the new incredibly rich metadata layer (as well as updated visualizations) to summarize key trends in PTAB trials. From the first petition in September 2012, all the way through those filed in December 2015, this report provides unprecedented insight into what is happening at PTAB.

Key findings include:

- **Resolutions**: The top resolutions for terminated PTAB trials are: denial of institution (20%), settlement pre-institution (19%) and a finding that all claims petitioned are unpatentable (18%). Findings upholding all petitioned claims happen less often (3%), as do mixed claim findings (3%)
- **Tech Centers**: PTAB trials at the Technology Centers for communications (18% of terminated petitions) and semiconductors (17%) are most common, followed by transportation (15%) and computer architecture (15%), with mechanical engineering (10%) and biochemistry (8%) among the least common.
- **Administrative Patent Judges** (APJs): The most experienced APJs at PTAB have had more than 300 trials (Joni Chang, 314 trials, and Kevin Turner, 303 trials, as of January 14, 2016), but many have far fewer.
- **Timing**: Institution decisions are highly consistent around a median of 181 days, while times to final decisions are more spread out around of a median of 533 days (or about 1.5 years).
- **Law Firms**: Finnegan is the most experienced firm in representing petitioners (40 terminated trials filed 2015), but also appears defending patent owners in 16 terminated trials filed in 2015 (unlike other top petitioner firms, which tend not to defend patent owners).
- **Top Parties**: Apple has filed 252 PTAB trials (making it the leading filer of PTAB petitions with 197 IPRs and 55 CBMs) but has never appeared as a patent owner. Samsung Electronics, the second most active petitioner, has filed a total of 155 PTAB trials (141 IPR and 14 CBM), and has appeared as a patent owner in 11 petitions.
- **Grounds of Decision**: CBM trials have been successful on § 101 grounds (of the 281 terminated CBM trials, 40 have resulted in a claims held unpatentable under § 101, while only 1 has result in claims upheld under § 101). On the other hand, IPR petitions based on prior art on grounds of § 102 and § 103 appear to reach each of the various outcomes at approximately the same rate.





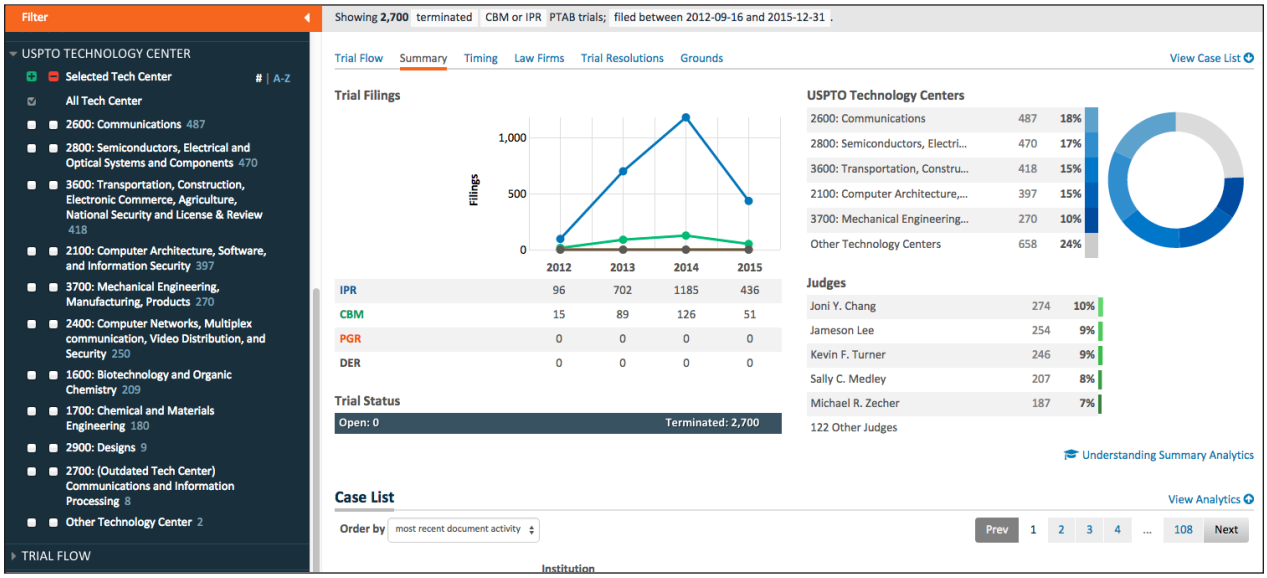
Resolutions

Lex Machina's PTAB dataset captures the entire life-cycle of every PTAB trial - from the filing of the petition, through institution, to the ultimate disposition.

A number of other publications and commentators ignore the large number of petitions that never reach the institution decision, reporting a large percentage of post-institution trials in which PTAB holds claims unpatentable. The chart above shows that this statement is inaccurate.

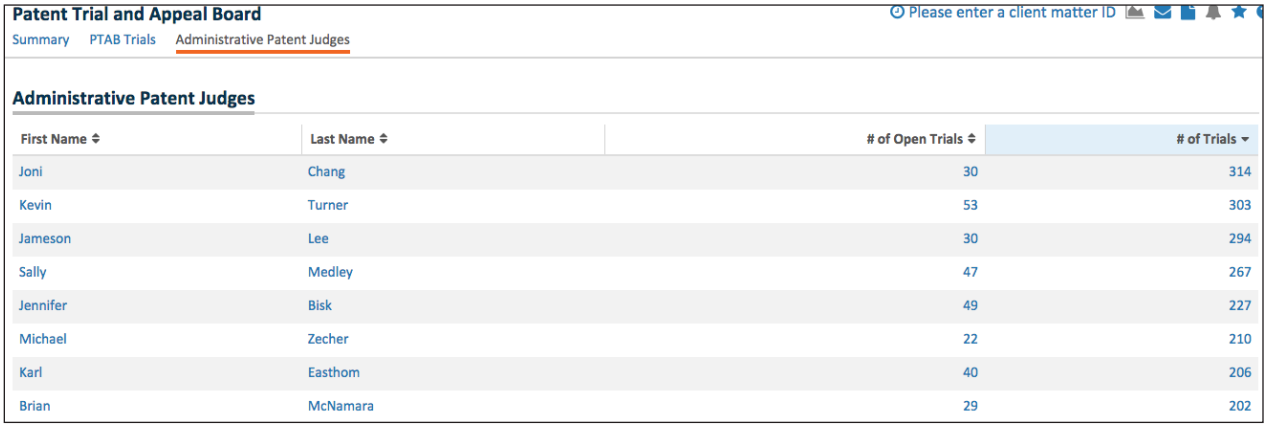
In actuality, 20% of terminated petitions were denied institution, and another 19% were settled before the institution decision was reached; these two pre-institution resolutions are the most common of all resolutions. The third most common resolution is victory for the petitioner - 18% (493) of terminated petitions resulted in all the petitioned claims being held unpatentable, a number 50 less than the number of petitions denied institution (543, 20%). Another 5% of petitions resolved with the patent owner disclaiming claims (1% before institution and another 4% after institution). Mixed findings were about as common as holdings of all claims upheld (3% each).

This report covers terminated IPR and CBM reviews filed 9/16/2012 -12/31/2015 unless stated otherwise. Open trial data as of 1/14/2016. Lex Machina refers to PTAB proceedings (including those not instituted or pre-institution) as trials.



Technology Centers

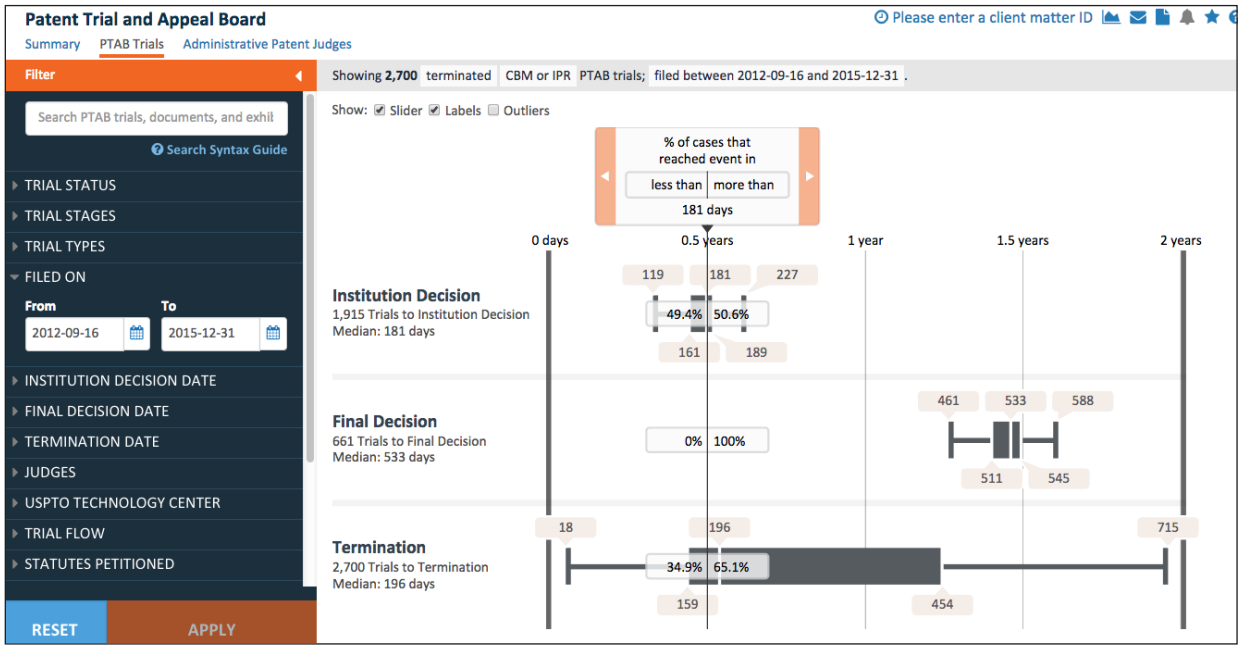
The new data includes PTO Technology Centers, making it easy to better estimate your odds by looking only at cases involving particular technologies, a benefit regardless of whether you are petitioner or respondent, outside counsel or in-house. Specifically, patents involving Communications (18% of terminated petitions) and Semiconductors (17%) are far more likely to experience PTAB litigation than patents on Mechanical Engineering (10%) or Biochemistry (8%), with transportation (15%) and Computer Architecture (15%) falling in between. This kind of targeted information can help companies more realistically assess their exposure and help practitioners already experienced with a particular sector find new clients in need of representation.



First Name	Last Name	# of Open Trials	# of Trials
Joni	Chang	30	314
Kevin	Turner	53	303
Jameson	Lee	30	294
Sally	Medley	47	267
Jennifer	Bisk	49	227
Michael	Zecher	22	210
Karl	Easthom	40	206
Brian	McNamara	29	202

Administrative Patent Judges (APJs)

Lex Machina's dataset also includes the APJ for each PTAB trial. As shown in the chart above, the most experienced APJs at PTAB have had more than 300 trials (Joni Chang, 314 trials; Kevin Turner, 303 trials; as of January 14, 2016), but many have far fewer. It is common for a judge to have 20-50 trials open at a time. The wide range of experience among APJs makes it imperative to know your audience.



Timing

Lex Machina's new data would be incomplete without the power of boxplot visualizations to help understand PTAB timing. Knowing how long from the filing of a petition until a key milestone is reached enables users to budget more accurately, arrange workflow, and eliminate surprises. As indicated by the midpoint of the top two plot above, institution decisions are highly consistent around a median of 181 days, while times to final decisions are more spread out around of a median of 533 days (or about 1.5 years). The greater variability around final decision means its timing is less predictable than institution, which rarely strays more than a month or two from its median.

Law Firms

Lex Machina's law firm analytics lets firms assess their competition and develop new business, and guides companies in finding the best counsel to represent them, regardless of which side of the "v" one appears on. Looking at terminated PTAB trials, Finnegan is the most experienced firm in representing petitioners (40 terminated trials filed 2015), but also appears defending patent owners in 16 terminated trials filed in 2015. Other top firms representing patent owners in petitions filed in 2015 did not represent plaintiffs (Ahmad Zavitsanos ranked first with 23 trials representing patent owners, and Ascenda Law ranked second with 20 trials representing patent owners).

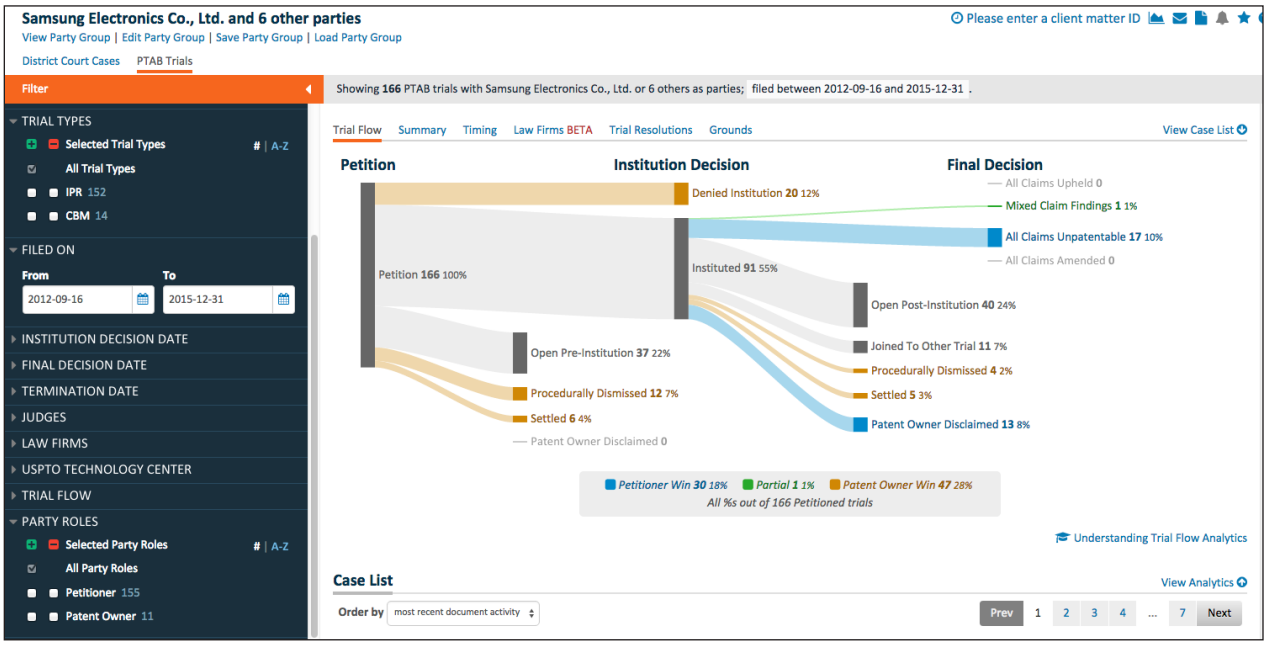
Law Firms, continued

Breakdown of Top Plaintiff Law Firms

Law Firm	Trials Representing Petitioners	Trials Representing Patent Owners
Ahmad, Zavitsanos, Anaipakos, Alavi & Mensing	0	23
Ascenda Law Group	0	20
Finnegan, Henderson, Farabow, Garrett & Dunner	40	16

Breakdown of Top Defense Law Firms

Law Firm	Trials Representing Petitioners	Trials Representing Patent Owners
Finnegan, Henderson, Farabow, Garrett & Dunner	40	16
Fish & Richardson	26	3
Sidley Austin	25	2
Oblon Spivak McClelland Maier & Neustadt	19	6

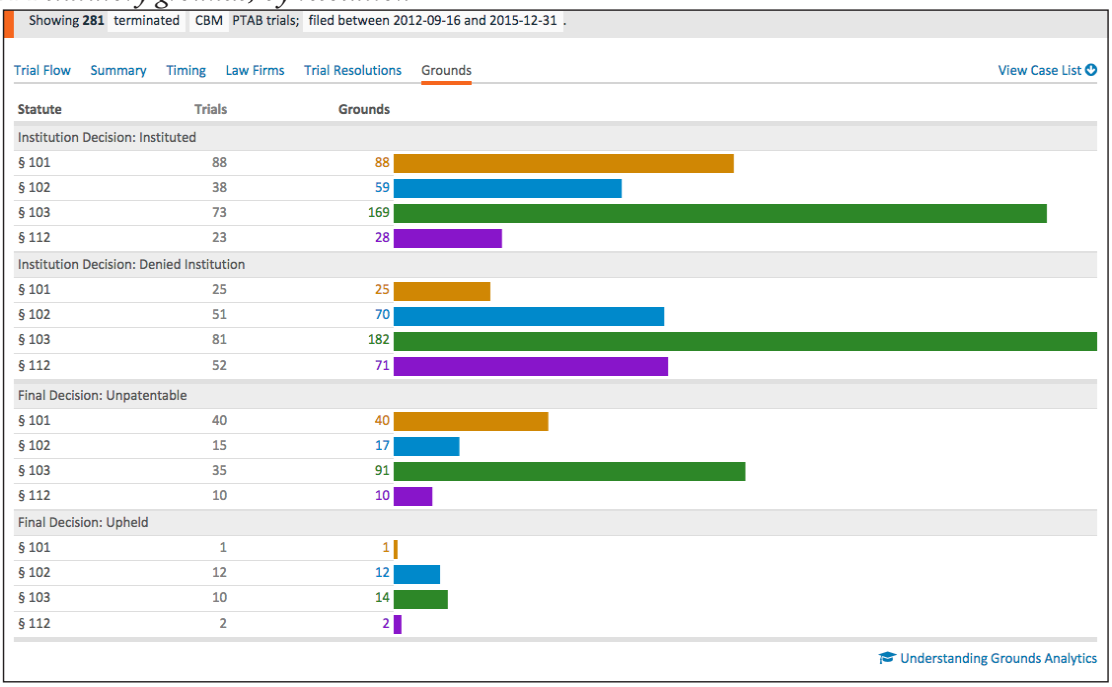


Top Parties

Lex Machina also makes it easy to get information on a particular company's actions at PTAB. Apple has filed 252 PTAB trials* (making it the leading filer of PTAB petitions with 197 IPRs and 55 CBMs) but has never appeared as a patent owner. Samsung Electronics, the second most active petitioner,* has filed a total of 155 PTAB trials (as reflected in the chart above, 141 IPR and 14 CBM), and has appeared as a patent owner in 11 petitions. This makes it easy to assess the likelihood of a company filing a petition, or to compare your review strategy against peer companies.

* including open trials as of 1/14/2016.

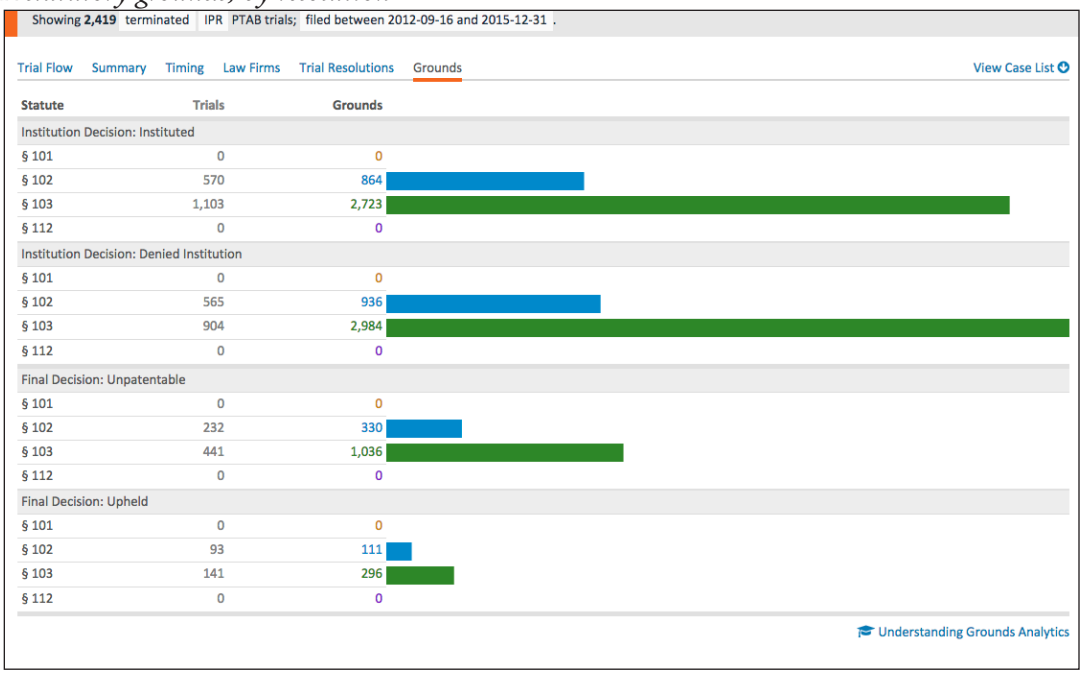
CBM statutory grounds, by resolution



CBM/IPR Trends and Statutory Grounds

Lex Machina's aggregate data reveals trends in the different grounds for PTAB IPR and CBM petitions. In looking at the chart above, of the 281 terminated CBM trials, 40 have resulted in a claim held unpatentable under § 101, while only 1 has result in claims upheld under § 101. 25 of the § 101 were denied institution and another 88 terminated after institution. In comparison, terminated CBM trials including § 112 claims were far less likely to be instituted (52 have been denied institution with only 12 reaching a final decision and another 23 terminating after institution). IPR petitions based on prior art on grounds of § 102 and § 103 respectively appear to reach each of the various outcomes at approximately the same rate.

IPR statutory grounds, by resolution



Grounds and prior art for Capital Brand LLC, et al. v. Whirlpool Corp., IPR2014-00877

Grounds (Statutes and Prior Art)

Petition Stage

This table reflects the collection of statutes and prior art used to challenge claims in the Petition. At the Petition stage, Lex Machina does not connect statutes, prior art references, and individual claims.

Statute(s):	102(b), 103	
Prior Art:	US Patent	Kolar, Wulf

Institution Decision

These tables reflect PTAB's explicit rulings on individual grounds at Institution Decision or Final Decision. A "ground" is a combination of a statute, one or more prior art references, and patent claims. Each row of the table represents one ground.

Statute	Prior Art Type	Prior Art References	Claims
Instituted			
102(b)	US Patent	Kolar	1, 3-9, 11-16
102(b)	US Patent	Wulf	1-16
103	US Patent	Kolar	1-16
Denied Institution			
102(b)	US Patent	Kolar	2, 10

Final Decision

Statute	Prior Art Type	Prior Art References	Claims
Upheld			
102(b)	US Patent	Wulf	1-16
103	US Patent	Kolar	1-16

Prior Art

Lex Machina's PTAB features allow users to easily move from broad trends down to applied specifics, shifting from aggregated trends into the particular statutes and prior art references at issue in each stage of a single case. Being able to connect the claims you care about with what has happened to those specific claims in the relevant PTAB trials can save duplicated effort and let practitioners be more efficient in finding solutions for their clients.

Claim Level Findings

The new dataset also goes deeper - down to individual claim results. Knowing exactly which claims have been petitioned, and the fate of each individual claims gives practitioners an edge - it's the difference between reading "at least three claims survived review" in a letter and knowing that three claims were upheld while 15 were found unpatentable and another 5 were denied institution. With this interface, you can quickly and easily connect the claims that matter to you with their outcomes, saving time, money, and frustration.

Claim Findings for Silicon Labs. Inc. v. Cresta Tech. Corp., IPR2014-00881

Claim Findings

Number	Petition	Institution Decision	Final Written Decision
1-2, 5, 8	Petitioned	Instituted	Unpatentable
9	Petitioned	Denied Institution	-
11	Petitioned	Instituted	Upheld
12-13	Petitioned	Instituted	Unpatentable
16	Petitioned	Denied Institution	-
20-21	Petitioned	Instituted	Unpatentable
22	Petitioned	Denied Institution	-
24	Petitioned	Instituted	Upheld
25-26	Petitioned	Instituted	Unpatentable
29	Petitioned	Denied Institution	-
31-32, 35-36	Petitioned	Instituted	Unpatentable
37	Petitioned	Denied Institution	-
39	Petitioned	Instituted	Upheld

Being able to distinguish claims denied institution from those upheld or those settled can help practitioners discern, to an unprecedented degree, the underlying story of a PTAB trial. For example, certain claims of a petition may have been denied based only on weaker prior art and a § 103 grounds, or perhaps no prior art at all but only on a § 101 argument, leaving plenty of possibility for a more successful challenge on better art.

Conclusion

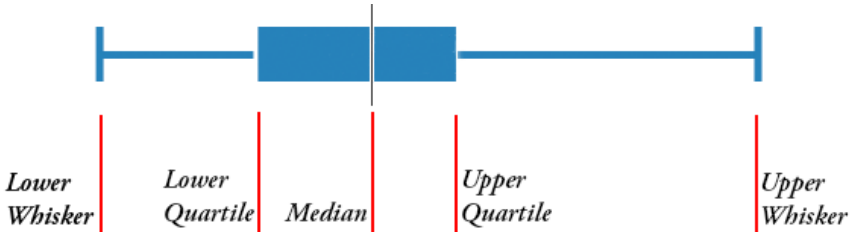
Together with Lex Machina's party and patent based searches, these features provide new levels of insight into PTAB trends and allow participants to refine their strategy. From better budgeting to counsel selection, Lex Machina's data enables more sophisticated decision making by letting users filter and find the cases most relevant to them. Our flow visualizations make it easy to see and understand the outcomes of PTAB litigation across thousands of trials, or more specifically over those reaching a particular outcome, before a given judge, or involving some form of technology. From seeing how different statutes affect the likelihood of success to tracing the fate of particular claims, Lex Machina makes it easy to move from general probabilities down to the most relevant raw material on which good legal reasoning is based.

Using Boxplots to Understand Timing

Lex Machina's analytics use a data visualization known as the boxplot to convey information about the timing of significant events in a case. Knowing how to interpret this data gives you an advantage when it comes to strategy, budgeting, and setting expectations, as well as in other decisions that involve case timing.

Consider a newly filed case: Regardless of whether you're an outside counsel, say, trying to determine how large of a flat fee to charge or trying to make sure two trials don't overlap, or an inside counsel estimating legal spend and evaluating a firm's proposed budget, case timing matters. Knowing the lower and upper bounds of how long it may reasonably take the case to reach injunction can give both kinds of counsel a strategic advantage over opponents lacking such nuanced information. Moreover, knowing the best and worst case scenarios for timing, or exactly how likely it is that a case will be active in 6 months enables more far-sighted contingency planning.

A boxplot summarizes a series of data points to help you understand the shape, or distribution of the values in those points. The boxplot is drawn based on five numbers: the median, the upper and lower quartiles, and the whiskers for a distribution.



Paying attention to these key parts of the plot will help you quickly understand what you need to know. Although boxplots provide a wealth of information, the four observations below, in order from simplest onwards, are all one needs to easily grasp the significance of a boxplot.

Median: the middle dividing line of the box splits the data points evenly so that 50% fall to either side. It's a form of average that gives a single number representation of what to reasonably expect.

Box bounds: the box encloses the middle-most 50% of the datapoints (from the 25th percentile to the 75th), with 25% of the datapoints falling outside to either side. This makes the box a good representation of the range one can reasonably expect.

Box compressed or elongated: a more compressed box means that more datapoints fall into a smaller range of time and therefore are more consistent; in contrast a longer box means that the datapoints are spread out over a wider time period and are therefore less predictable.

Whiskers: Whiskers are drawn to show the outside bounds of reasonable expectation, beyond which datapoints are considered outliers.[1]

1 By statistical convention, boxplots define outliers as points beyond more than 1.5 times the width of the box (sometimes called the "interquartile range").

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