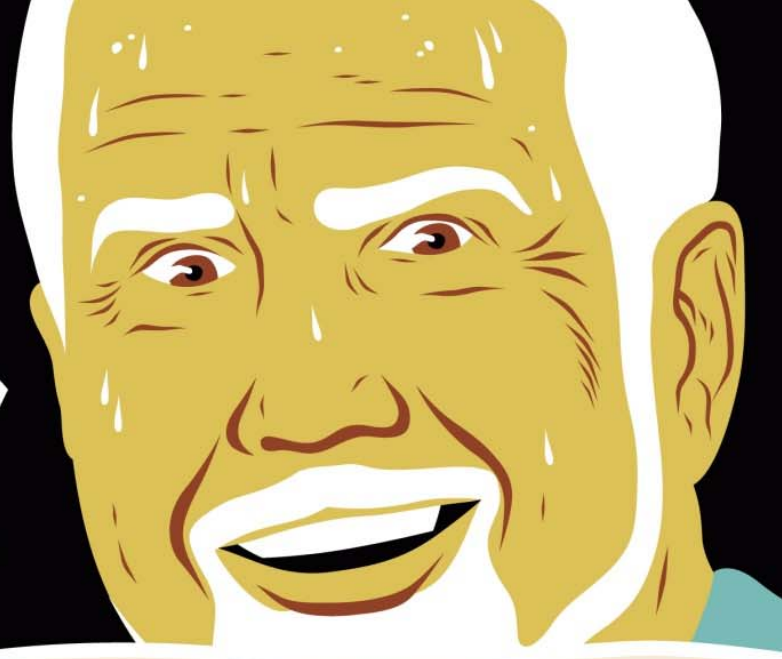


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1 Introduction to Ronald A. Katz

In the early '90s a young [telecom scientist](#) by the name of Ronald Katz told New York Times that he would one day make a fortune from corporate America's reliance on interactive call processing. Most people who read the interview did not pay attention to this claim. However, later years proved him right.

When customers call a call center to place a buy or sell order for their stocks or activate a credit card over the phone, they are using telephony technology invented by Ronald Katz. With over 52 patents in his name, Katz has pretty much dominated the software and hardware used in most call centers. He has made good use of these patents by extracting over \$1 billion from various companies. He formed the first online system that can authorize credit and check payments on a real time basis.

Katz claims that these fees, known as RAKTL fees (Ronald A. Katz Technology Licensing) which averages around \$2-\$3 million per case, are payments that are due to him by companies who use the technology that he helped to develop. However, most companies view Katz as a 'patent troll' who is trying to extract money from their profits.

In spite of this, the list of companies who have paid up to Katz is impressive and includes biggies such as Microsoft, IBM, Bank of America, AT&T, Sears and Merrill Lynch.

His primary modus operandi is to aggressively file lawsuits for patent infringement against large corporate organizations that have extensive telecom and call center operations. Based on his patents, Katz has been able to charge license fees from any company who uses an interactive or automated system to perform transactions such as customer service, credit card authorizations and remote ordering, among others. Most companies start looking at the issue after they receive the 'Katz Letter' which includes an estimate of the amount owed by the company based on publicly available information. The estimate is based on 'Katz minutes' which is essentially the number of minutes the organization has used the technology in question since the patent was granted. Katz is notorious for the complex way in which he drafts his patents, and as a result several technological processes also fall under the gambit of 'Katz minutes' thus raising the claim figures.

2 Academic History

Ronald A Katz was born in 1936 and is an inventor, mainly in the field of [automated call center technologies](#) related to toll free numbers, IVR systems, call distribution, computer telephony integration and speech recognition. He is the president of Ronald A. Katz Technology Licensing LP.

He once predicted that he would become the world's wealthiest patent holder and he has almost achieved his target today.

Katz, now in his seventies, started off as the co-founder of Telecredit Inc, in 1961. It is considered to be the first company that helped merchants verify consumer checks over the phone automatically without having to speak to a live agent. Katz was awarded a patent as co-inventor of this technology.

In the eighties, he had several patents related to interactive telephone systems. In 1988, he formed a partnership with American Express to provide call processing services, which later became First Data Corporation.

Almost a decade later, Katz set up Ronald A. Katz Technology Licensing which owns all his patents today. He uses his company to license his patents to companies that use automated telephony technologies in their call center. By 2001, the company had collected well over \$300 million in licensing fees. What sets Katz apart from other patent holders is the almost fanatic zeal with which he files lawsuits against companies which do not take a license. While other patent holders stay away from litigation due to the huge effort, costs and uncertainty surrounding it, Katz has aggressively pursued all perceived patent violations until 2009 when most of his patents expired.

By 2005, Katz had already earned \$750 million in licensing fees and today his earnings is estimated to be between \$1 billion and \$2 billion.

2.1 Comparisons with Lemelson

Katz is often compared to Jerome Lemelson, another billionaire who made his fortune from patent enforcement, before his death in 1997.

However, Katz himself does not like being compared to Lemelson who rose to fame through what is known as a submarine patent. These patents lie dormant for several years and then as the technology matures and gains commercial significance, then it suddenly re-appears in the form of lawsuits. In fact,

Lemelson, has made clever use of loopholes in the system by submitting amendments for patents filed in 1950's which usually get issued several decades later, by which time the patent application includes all the cutting edge technology in the field.

Katz strongly denies that his strategy is to keep amending and complicating his patents like what Lemelson did. In fact, thanks to a change in the patent law, you cannot infinitely extend the life of your patent anymore. Katz also claims that most of his patents have a limited life of 17 years. Katz is also more of an inventor than Lemelson ever was. He was the co-founder of several technologies such as the automated credit and check verification system, computer-telephony interface technology, anticounterfeiting and data mining.

Still, analysts agree that Katz has identified the economic potential of patents and spends most of his time trying to make money from patents rather than from actually running a company that sells a product or service.

2.2 Lawsuits

If you search through the federal district court filings, you will see that RAKTL has filed over a hundred lawsuits. Most of the defendants are the 'who's who' of corporate America and range from GM, United Airlines and New York Life. Over the past couple of decades, RAKTL is believed to have initiated over three thousand claims for patent violations.

While some of the cases remain pending in various district courts, most corporations choose to settle out of court and the lawsuits invariably have resulted in licensing agreements, which means more money for Katz. In the initial days, Katz focused on banks and financial institutions as potential targets as he believed that they used many of his technologies extensively. However, as call centers became more ubiquitous and more technologically advanced, Katz started suing other industries as well. Today, the companies that have opted for out of court settlement belong to diverse industries and include those in sectors as varied as retail, insurance, financial services, healthcare, hospitality and energy. The list of companies which have licensing arrangements with RAKTL include Avon Products, DTE Energy, Ford Motor, GMAC, Morgan Stanley, Safeway, United Airlines, Wal-Mart, Target, Northeast Utilities, Countrywide Financial, Massachusetts Mutual, Wachovia, Sears, Microsoft, Amex, AT&T, Bank of America, Delta Airlines, IBM and Merck.

The lawyer community has been divided in its views of Katz's strategy. Most of them, though, see nothing wrong in his approach.

Author of the popular patent-law blog, Patently-O, Dennis Crouch feels that often patent infringement goes undetected and patent holders do not find it viable to sue due to the high litigation costs involved, especially when the potential damages are below \$1 million. However, if every patent holder follows this model, it can actually stifle innovation, he noted in an interview in 2005. He, however, went on to add that it is an unlikely eventuality and he did not believe that the patent policy needs to be changed.

RAKTL however has fine tuned a model in which the transaction costs have been minimized, making litigation a worthwhile proposition, especially against the big names of corporate America.

Yet another patent litigator Michahel D. Bednarek who is a partner with Paul, Hastings, Janofsky & Walker in Washington, D.C. has been closely following the RAKTL lawsuits as well as the US Patent Office's reexamination of Katz's patents. He feels that the bad press that Katz has received from corporate America is mainly because Katz has used two patent applications to obtain dozens of patents. These patents in turn have led to thousands of claims. He however said that, these actions are all permissible as per USPTO rules. He also added that it is not the patent system, but the supporting infrastructure that has to be improved to suit the changing requirements of the knowledge based economy.

There are several lessons to learn from the Katz cases though. When patent owners try to sue a broad group of companies, it is important for the vulnerable corporates to identify the risk early, and take necessary mitigation steps. The first step is to perform an internal assessment of the quantum of vulnerability. The response strategy needs to be formulated based on a quantifiable analysis of the problem at hand and companies cannot afford to react in an emotional manner to such lawsuits.

For example, as Mr. Bednarek says, companies that rationally assessed the Katz claims realized soon enough that taking a license may be a more cost effective solution than investing millions of dollars in legal fees to fight the case. After all, if they go in for settlement, they are more likely to get favorable license terms than if they fight and lose.

After all, the financial implications of receiving a Katz letter can be to the tune of \$5-\$10 million in Katz minutes alone. In addition, companies have to factor in the expenses for an operational/telecom audit to identify the actual value of the exposure and also the opportunity cost of new projects that may get held up while the companies decide internally on a possible change in technologies.

It is recommended that if a company is sued by RAKTL, then they get professional help from a lawyer who has prior experience in such cases. Today, there are several patent litigators who have in-depth knowledge about the Katz patents and the licensing system.

2.3 Opposition to Katz’s Claims

However, it has not always been smooth sailing for Katz. Companies have joined hands together to fight back against RAKTL’s aggressive tactics in the past, though without much success. In 2004, the then Director of the US Patent & Trademark Office, Jon W Dudas, ordered a reexamination of four of Katz’s patents on his own initiative. These patents represent almost 350 different claims. These formed only a fraction of the total number of claims in Katz’s patents, however it did boost industry’s confidence to fight back individually as well as in groups. For instance, in 2005, several financial services companies formed a lobbying group and approached the US Patent & Trademark Office to reexamine more of Katz’s patents. The USPTO has faced a lot of criticism for its practices that help people like Katz in building very broad patent portfolios from a relatively narrow set of initial applications. In fact, the USPTO decision to reexamine Katz’s patent claims was an unusual step due to several reasons, the foremost being the fact that the USPTO does not order reexaminations very frequently. In fact the USPTO Director would order a reexamination on his own initiative only when it is clear that (i). an examination procedure was not followed which has resulted in the granting of a claim in a patent that is ‘prima facie’ not patentable and (ii). there is a compelling reason to order a reexamination. This is a higher criteria that that applied for a reexamination in response to a request by either the public or the patent holder. Considering that this higher standard was applicable for at least some Katz patents, it was only normal that RAKTL’s targets were given a fresh impetus to look for prior art.

There was also an expectation that at least some claims in Katz’s patents would be narrowed down as a result of the reexamination. Till then, only 2% of the reexaminations were self initiated by the Director and in those cases 13% resulted in confirming all claims, 19% resulted in cancelling all claims and 68% resulted in some form of narrowing of claims re-examined. Of the 98% patents reexamined as a result of external requests, the reexamination resulted in the following results.

Request By		Reexamined Claims
Patent Holder	Public	
23%	30%	All Confirmed

7%	12%	All Cancelled
70%	58%	Some Narrowed

The risk of the reexamination was that the claims that are not narrowed would automatically become stronger, however, since a lot of RAKTL's claims were already strong, the targeted companies did not see any downside risk to the reexamination decision and welcomed it.

In 2010, a complicated ruling was delivered on what is commonly known as the C track cases, with respect to eight automated phone systems patents, where the summary judgment bid on obviousness was granted for certain claims while it was denied for other claims. Katz and his company had filed nearly 50 suits that were all transferred to the California court. The defendants included several companies including Macy's, Teligence Inc., EchoStar Communications and Fifth Third Bancorp. Several summary judgment motions filed by individual defendants in the C Track case still remain pending, so there are no clear winners yet. The patents relate broadly to the area of computer telephony integration and automated systems that allow callers to access account information, request for a new service, transfer a service, stop a service, make payments due for a service and perform similar self service activities. The judgment covered the following patents: U.S. Patent Numbers 5,561,707; 5,974,120; 6,335,965; 5,898,762; 5,684,863; 4,930,150; 6,044,135; and 5,835,576. The judge granted summary judgment for obviousness with respect to certain claims in the '120, '707 and '863 patents while denying the bid for summary judgment of invalidity with respect to certain claims in the '150, '576 and '135 patents. The patents cover automated systems that allow

3 Discussion of Patents Held

The portfolio of patents held by Katz includes more than 50 patents and couple of thousand claims around customer service applications that use one or more of these technologies:

1. Toll Free Numbers
2. Automated Attendants
3. Automatic Call Distribution
4. Voice Response Unit
5. Computer Telephony Integration
6. Speech Recognition

While a discussion on all of Katz's patents and claims is not part of this paper, we will look at some of the key patents that Katz has.

Multiple format telephonic interface control system: Patent number: 5917893

Filing date: Jun 7, 1995

Issue date: Jun 29, 1999

This patent relates to computer telephony integration and intelligent switching based on call data. Call data includes the called number, the calling number and the calling equipment. The call data can be used to select whether the call is transferred to a live operator terminal or a multiple formant multiple port data processing system. Various tests such as time tests, history tests and demographic tests may be done in addition to the basic selection and qualification tests to effectively route the call.

Telephone interface call processing system with call selectivity: Patent number: 5828734

Filing date: Oct 4, 1993

Issue date: Oct 27, 1998

This patent relates to a telephone call processing system for receiving calls from a multitude of terminals in different call modes. This system can be used with a public telephone network that incorporates a vast number of terminals to limit and control access to implement voice –digital communication for statistical processing. The system accommodates calls from different modes such as “800” calls, “900” calls and area code based calls and incorporates qualifying criteria to restrict caller misuse. It can also be used to control the calls based on calling terminal identification with the use of equipment such as ANI. This patent includes claims that cover games and contests where winners need to be determined based on their response to certain automated questions.

Telephonic-interface statistical analysis system Patent number: 5815551

Filing date: Jun 7, 1995

Issue date: Sep 29, 1998

This patent relates to a telephonic interface system and related processes that utilize digital and analog telecommunication data to select or qualify a set of callers, to enable positive identification of certain callers in the set, acquire data for such callers and statistically analyze the acquired data in combination with external data. The statistical analysis along with details such as caller sequence may be used to isolate a group of callers or an individual caller for further analysis. This method is used in telephonic lotteries to identify winners or to identify the eligibility set for conducting a survey.

You can get further details of all of Katz's patents from the USPTO or by searching for specific patent numbers in Google.

According to Katz himself, his patents are broad based and cover a wide range of automated customer services such as home shopping, merchandising, prepaid service orders, security trading and telephone services. He also claims that his patents cover all functions where CTI is used such as obtaining information from databases through telephone, interactive transactions over telephone and other areas where toll free numbers are typically used.

3.1 Litigations

Despite the huge amounts of licensing fees that Katz has earned over the years, very few claims have actually resulted in lawsuits. Katz and his company usually file a lawsuit to enforce his patents, if a license negotiation fails. In this section, we will look at some of the major lawsuits filed around the Katz patents in recent years and their outcomes.

In 1997 Katz and MCI sued AT&T in Pennsylvania. They obtained a favorable claim construction ruling in 1999. In November 2000, AT&T reached an out of court settlement with Katz for an undisclosed sum which is speculated to be around \$100 million.

In November 2001, Katz sued Verizon Communications and Verizon Wireless seeking to take advantage of the favorable claim construction that he obtained in the earlier AT&T case. This case has also been assigned to the same judge who gave the positive claim construction ruling in the AT&T case – Judge Reed. In January 2002, Verizon moved for summary judgment of non-infringement. Verizon also brought a declaratory judgment action in California, claiming invalidity and unenforceability of the

patents along with non-infringement. Katz subsequently made a request to move the case to Pennsylvania, which was denied. Simultaneously another company, Enhanced Global Convergence Services, also brought a declaratory judgment action against Katz in New Hampshire. The key aspect of these cases is that the invalidity or unenforceability of the Katz patents has never been briefed before.

Some of his other significant lawsuits that Katz has engaged in during the nineties are given below:

- Ronald A. Katz Technology Licensing, LP v. Micro Voice Applications, Inc., Embarcadero Publishing Co., Bay Guardian Co., Inc., Chronicle Publishing Co. and San Jose Mercury News, Inc.
- First Data Resources, Inc. v. West Interactive Corp. and Fantasy Sports Concepts Inc.
- First Data Resources, Inc. v. 900 Million Inc., Madmony Productions Inc., and 900 Million Production.

All three of these lawsuits resulted in consent judgments.

4 Impact on the telecommunications / call center industry

As expected, organizations that operate in the area of computer telephony, especially the telecom majors and the big call centers are not happy with Katz's strategy. They feel he is a parasite eating into their hard earned profits. Most of Katz's patents are unusual because they are based on very narrow definitions of a technology. The written description of his inventions are usually quite short and run into just 20 odd pages, however, the claims run into several hundred pages. Claims in a patent application are what define what constitutes a patent infringement. Each of Katz's patents have thousands of claims each differing from the other in very minute aspects. Most of them are broad based and vague to interpret as well. This means that a lot of lawyer time is spend on identifying the boundaries of the patents itself. Thus, companies faced with a large number of Katz's patent claims often find it cheaper to pay the license fees than hire lawyers to identify whether the claim has any merit in the first place. Companies often end up paying Katz, not because they feel he is right, but rather to avoid his nuisance. That is probably why the few companies who chose to fight him on court also opted for out of court settlement before the final verdict was out.

There are several ways in which companies can deal with Katz litigation. There are several considerations to keep in mind before you decide on how best to respond to a Katz litigation:

- Katz patent portfolio comprises of close to 52 patents with over 2000 claims. Katz has claimed that he has another 15 to 20 patent applications that are pending with the USPTO. The earliest priority dates on these patents go as far back as July 1985.
- Katz and his company do have the bandwidth to litigate, but the actual number of lawsuits that they have filed is very less. This means that they prefer to spend the time and effort required to negotiate a license and will resort to litigation only if the negotiations fail.
- The negotiations typically revolve around 'Katz minutes' which is based on the no. of minutes the company used the technology.

While most organizations chose to settle out of court by paying up, a few have chosen to fight it in court. AT&T is one such company which chose to fight it out, however even they chose to settle out of court for an amount which is widely reported as close to \$100 million.

The most common defenses against a Katz litigation are those of invalidity, unenforceability and non-infringement. However, potential targets can explore other defenses such as an implied or express license, if the alleged equipment and services are purchased from a company who already has a license

from Katz. In similar lines, you may also choose to seek indemnification from your vendor. You can also choose to use the Federal Circuit's judgment in the Symbol Technologies Inc. v. Lemelson Medical Foundation (Jan. 2002) as a precedent and have a defense of prosecution laches. This is because the decision reached in the earlier case recognizes that if there is an unreasonable and unexplained delay in prosecuting a patent then the enforcement of such patent claims may be barred. These are some of the ways in which a client can frame a defense. However, individual facts must be analyzed by a competent patent lawyer familiar with Katz lawsuits before the suitable course of action is decided.

The organizations who reach a settlement often pay up a figure that covers usage till date and then a licensing fee for future use. However, companies soon started adopting a third strategy to respond to Katz's letter. Rather than pay up or fight in court, companies have gone in for a detailed telecom and operational analysis to determine the actual Katz minute usage. This will result in a well documented and often much lower figure when compared to the claims by Katz. Having detailed information will also help the legal position and give the organization an upper edge while negotiating for a license fee. Once the analysis is done, organizations can determine clearly what their financial exposure is, and then start focusing on other day to day business issues. In fact, for companies that use telephone call processing services and are vulnerable to Katz's claims, it is better to undertake this assessment even before they actually receive Katz's letter. While such an analysis will not completely remove the problem or bring down the financial exposure to zero, it will always help to make better decisions as you can decide on your response strategies based on facts and not emotion or speculation.

4.1 Telecom Analysis

A telecom analysis would analyze the historical data of the organization and classify them based on the technology used, and also identify the minutes in a call where the technology was not used. It will also document the internal processes and technology architecture of the company which is used to maintain data integrity between the various sources such as telephone, fax, web and the underlying database. The typical flow diagram of a call is also documented. It is a detailed exercise which requires high end analytical tools and human experts who would correctly correlate and interpret the data and is best done by an outside agency who has the expertise in such analysis. There are several benefits that can be derived from an operational analysis of historical call data, some of which are given below:

1. A reduction in the potential financial exposure by as much as 50%
2. The impartial nature of a third party expert audit and analysis will have better legal standing

3. A good analysis documents Katz exposure levels, thus aiding your with Sarbanes Oxley compliance which requires you to among others, quantify potential risks and provide for them.
4. Helps to decide your course of action and gives you a figure against which you can compare potential legal fees vs. potential licensing costs and decide which the better option is.
5. An analysis of call workflow can provide you with opportunities of process improvement as well.

However, the analysis itself can end up eating a lot of time, effort and resources due to its sheer complexity. The complexity of an operational analysis arises from the following areas:

- 1 **Huge volume of calls to be analyzed:** Call centers who are at the receiving end of most Katz lawsuits have huge volumes of historical data pertaining to call types, toll free numbers, large number of call minutes, and multiple technology platforms and applications, all of which must be factored in while planning for a Katz analysis. In addition, if you add other channels for customer interaction, such as the web, fax etc, then the volume of information goes up again.
- 2 **Integrating Data:** Once the data sources and the data boundaries have been identified, the next step is to access and consolidate the data in a format that is ready for analysis. All data that exists in paper form, including telephone bills would need to be converted into an electronic format. The data period should at least be a minimum of 10 years and this again adds to the complexity of the analysis. Integrating data over several years, can be even more difficult if the company has merged with another organization or acquired another organization. Other factors that can complicate data integration would be a change of telephone numbers, addition of toll-free numbers or a change of technology. In such cases, the call center would need to perform a 'before and after' scenario based analysis.
- 3 **Handling Technical Data:** The type of technology used for each call needs to be identified and consolidated. It is not an easy task to identify all technologies that were used to handle a call, as at different points in time during a call, different technologies would have been put to use and an effective break up of calls based on technology used, is a complex task that involves specialized knowledge in the area. The team who performs this analysis would also be able to identify the technologies to be used in future to minimize the Katz exposure and also to quantitatively determine the approximate volume of future exposure after factoring in elements such as business growth and patent expiry. Another key factor to keep in mind while choosing the technology is customer satisfaction. For example, some companies choose to send all calls to voicemail, in an attempt to reduce the licensing fees. However, the license fee savings would hardly justify the loss incurred

from dissatisfied customers. Thus, decisions have to be taken after attempting to balance out the technological, legal and operational implications.

- 4 Time and Resources:** If a call center opts to perform the analysis in-house then the learning curve itself could be really steep as it would require several months and a large number of man-hours. In addition, the fact that the teams identified for this purpose will have additional day to day work, means that the analysis may not get the priority and focus needed to complete it in time. Using an external vendor who is experienced in operational and telecom analysis will not only give faster and more comprehensive results, but will also free up your internal resources to focus on achieving your business goals.

4.2 Response Strategy

Once the telecom and operational analysis is completed, the call centre has two options to respond to a Katz letter: they can either choose to 'wait and watch' or can give a response to the letter with a counter offer to settle outstanding dues and obtain a license based on the analysis results.

Companies who choose to 'wait and watch' believe that since some of the Katz claims are disputed in court, then a ruling against Katz would mean that companies need not pay any fees. However, even those companies who choose to 'wait and watch' must take necessary steps to make necessary technology and operational changes so as to minimize their Katz minutes in future. This will ensure that even if they have to pay up at a later stage, the quanta of payments is reduced and a license can be negotiated for future use at a lower rate.

On the other hand, an analysis of the operational processes may result in an identified need to use more of Katz technology. A call center must weigh the pros and cons in detail, and also factor in indirect benefits such as improved customer satisfaction, an ability to meet and exceed SLAs and so on, before finalizing on its course of action.

If a company chooses to negotiate a licensing agreement, then the telecom analysis should be used as the basis for arriving at the value of licensing fee and payments that the company is willing to make.

5 Conclusion

Today most of Katz's patents have expired, but new ones may be just round the corner. It is important for players in the call center industry to have a comprehensive risk management plan which includes an

analysis of risk from patent violations. Risk management teams must be set up internally and before technology decisions are taken, not only should a cost benefit analysis should be done, but also a risk analysis where each technology which is short listed is also vetted against potential patent violations, and the potential exposure in the event of a lawsuit or a patent infringement must be clearly identified. This will help organizations strategize its operations in a more proactive manner and not resort to knee jerk or emotional reactions in the event of a claim.

6 References:

1. http://en.wikipedia.org/wiki/Ronald_A._Katz
2. <http://www.forbes.com/forbes/2005/0328/062.html>
3. Google Search on Katz's Patents
4. <http://www.law360.com>