US 6,384,850

TAEUSworks Patent Evaluation

July 14, 2015

REPORT SAMPLE

About TAEUS Corporation

For nearly twenty years, TAEUS Corporation has helped market leaders around the world maximize the value of their intellectual property through comprehensive intellectual property business cycle solutions. Major organizations have turned to TAEUS to help them maximize shareholder value in mergers, acquisitions, and other corporate transactions, as well as gain a competitive advantage in the marketplace through strategic application of their unique intellectual property

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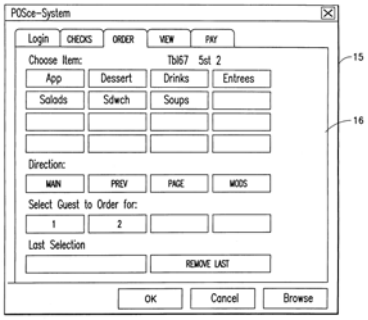
Contents

1. US 6,384,850

USPTO | Google

Title	Information management and synchronous communications system with menu generation		



Priority Date	999-09-21	**Filed Date**	1999-09-21
Publication Date	2002-05-07	**Expiration Date**	2019-09-21
Inventors	Mcnally, Keith R, Roof, William H, Bergfeld, Richard		
Current Assignee	Ameranth Technology Systems, Inc.	**Location**	US
PTO Length	2.63 years	**Claims**	16
Backward Citations	5	**Forward Citations**	36
Family Members	6	**Litigation**	Yes

Abstract

An information management and synchronous communications system and method facilitates database equilibrium and synchronization with wired wireless and Web-based systems user-friendly and efficient generation of computerized menus and reservations for restaurants and other applications that utilize equipment with nonstandard graphical formats display sizes and/or applications for use in remote data entry information management and communication with host computer digital input device or remote pager via standard hardwired connection the internet a wireless link or the like.

1.1. Claims Analysis

Independent Claims:	2
Dependent Claims:	14
Total Claims:	16
Shortest Independent Claim:	#12 (150 words)
Longest Independent Claim:	#1 (219 words)

1.2. Classification Analysis

I IP Classifications: 1

G06F 17/30: Information retrieval, Database structures therefor

US Classifications: 1

: Menu or selectable iconic array (e.g., palette)

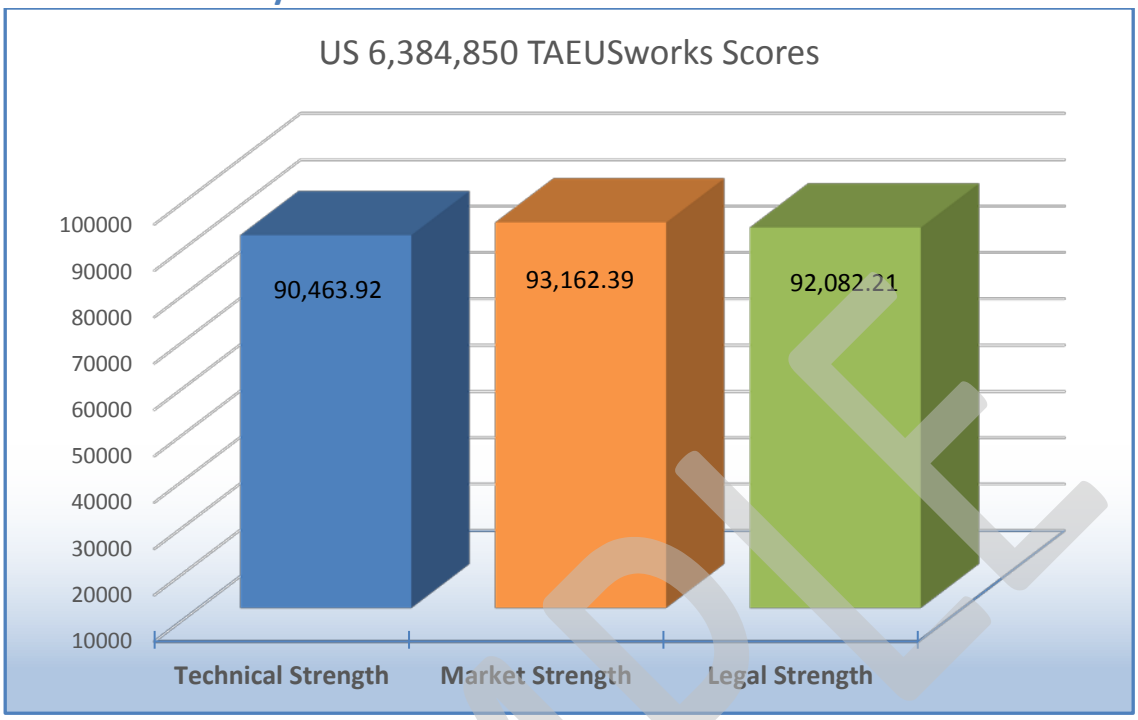
1.3. Citation Analysis

Backward Citations: 5 (Unassigned: 1, Microsoft Corporation: 1, General Electric Company: 1, Ipdev Co., Illinois: 1, HERE Global B.V.: 1)

Forward Citations: 10 (Google Inc.: 4, Good Technology, Inc.: 2, ERUERUSHII Ascent Media Group: 1, Samsung Group: 1, Neomar, Inc.: 1, Elgort Daniel R E: 1)

1.4. US 6,384,850 TAEUSworks Evaluation

1.4.1. Evaluation Summary



1.4.2. Acceptance/Rejection Criteria

1.0	**Does the patent meet the technical boundary conditions for inclusion in the PatentBook?**	
	a.	**Yes (explanation required)**
	b.	No
Global IP Response:		**Yes. Per TAEUS, Global IP has been instructed to assume this asset meets the technical boundaries for inclusion in the PatentBook.**
2.0	**Are the patent maintenance fees current?**	
	a.	**Yes**
	b.	No
Global IP Response:		**Yes. According to PAIR, 4th, 8th and 12th year fees are all paid. Respective payments were made on 1/3/2006, 10/7/2009 and 11/3/2013. Note entity status changed from small to large between 8th and 12th year payments.**
3.0	**Is the chain of title for the patent clear?**	
	a.	**Yes**
	b.	No
Global IP Response:		**Yes, according to public information. The USPTO assignments database lists Ameranth Technology Systems, Inc. as the current assignee, assigned by Keith McNally, William Roof, and Richard Bergfeld (R/F 010460/0511).**
4.0	**Has the patent been found to be unenforceable in a court of law?**	
	a.	Yes
	b.	**No**
Global IP Response:		**No, not as of the date of this submission.**

Note: Answers to questions 5-12 are only required for patents submitted as candidates for Tier 1 and Tier 2.

5.0	**Has one or more of the claims been found invalid in a court of law? (May require special review process)**	
	a.	**Yes**
	b.	No
Global IP Response:		**Yes, a jury found the '850 patent invalid; Ameranth moved for a new trial, which was denied and later appealed. The parties reached a settlement through mediation on appeal before a Federal Circuit Mediator and the verdict was later vacated, as was the judgment of invalidity (Case Reference: Ameranth v. Menusoft Systems Corp et al, Docket No. 07-cv-00271).**
6.0	**Is the patent currently in the process of being reexamined or reissued? (i.e., can't go in to additional review until the reexamination process is complete)**	
	a.	Yes
	b.	**No**
Global IP Response:		**No, not as of the date of this submission.**
7.0	**Is the patent currently being challenged on validity? (noticed or filed-i.e., can't go in to additional review until the challenge has been resolved.)**	
	a.	**Yes**
	b.	No
Global IP Response:		**Yes. In at least one action-- *IPDEV Co. v. Ameranth, Inc.*, Docket No. 3:14-cv-01303 (S.D. Cal. May 27, 2014)--IPDEV challenges the validity of the '850 patent under Section 102(g) (pre-AIA). Other threatened claims of invalidity may exist which would not be known without access to proprietary information.**
8.0	**Are there any exclusive license agreements (geographic, field of use, etc.) or encumbrances on the patent that could affect the non-exclusive licensing rights of the patent for the PatentBook?**	
	a.	Yes (explanation required)
	b.	No
Global IP Response:		**Cannot be confirmed without access to proprietary information.**
9.0	**Are there any joint ownership issues with the patent?**	
	a.	Yes (explanation required)
	b.	No
Global IP Response:		**Cannot be confirmed without access to proprietary information, but based on publicly available information, no joint ownership issues are present.**
10.0	**Was the patented invention made under a joint research agreement?**	
	a.	Yes (explanation required)
	b.	No
Global IP Response:		**Cannot be confirmed without access to proprietary information.**
11.0	**Is the patent subject to any government rights due to government funding of the research activity resulting in the patented invention?**	
	a.	Yes (explanation required)
	b.	No
Global IP Response:		**Cannot be confirmed without access to proprietary information, but based on publicly available information, the government does not appear to have any rights to the patent.**
12.0	**Is the patent part of a patent pool or essential to the practice of a technology standard?**	
	a.	Yes (explanation required)
	b.	No
Global IP Response:		**Cannot be confirmed without access to proprietary information, but the subject matter suggests technology standards are not applicable.**

1.4.3. Technical Criteria

Factor		Score (1-5)	Comments
I.	Observability	4	*How observable is the invention on a product?* This technology is observable (particularly, Claim 12) on a product. While some of the elements of Claim 1 are not directly observable, they can be inferred from testing.
II.	Ease of Investigation/ Investigation Methodology	4	*How difficult is it to determine if the patented technology is being used?* Testing and observation of the app operation will be sufficient to demonstrate use.
III.	Novelty/Originality/Technical Advantages (How original is the invention?)	2	*Examples of technical advantages include: can't build a display without it, lower cost materials, ease of manufacturing, enhances product quality, adds features, etc.* The invention is relatively novel, but not breakthrough technology. The technology is an adaptation of similar systems that existed in other fields.
IV.	Utility	4	*How useful is the invention to the products and where is this patent going to be used?* Use of the patented technology provides a competitive advantage for on-line ordering of food.
V.	Technology Maturity	4	*How mature is the technology covered by the patent? (e.g., most applicable to early adopter, leading-edge products/manufacturing, fast follower, new (current generation) products, low-cost manufacturer, etc.)* As more and more restaurants adopt on-line ordering of food, use of the technology will continue to expand for the foreseeable future.
VI.	Availability of Alternatives	3	*What is the availability of alternative technologies to accomplish the same result, and/or how difficult would it be to design around the patented technology?* Alternatives are possible to implement, but these alternatives may not provide the ease of use and extensive options that the patented technology provides. Accomplishing the same result without using this technology may cause customer frustration while using the alternative.
VII.	Possibility of Commercial Use	5	*What is the likelihood that the technology covered by the patent is used by products in the marketplace today?* This technology (or extremely similar technology) is widely adopted today in many on-line food ordering systems.
VIII.	Validity Confidence	2	*How likely is the patent to be at risk for anticipation or obviousness?* Based on class analysis, citation analysis, and looking at the use of the technology in other industries, it is likely that there is a risk of at least 103 prior art.
IX.	Presence of required or blocking patents	4	*What is the possibility that there are required patents or blocking patents?* Based on class analysis and citation analysis, it is possible that there are other patents which may be required to implement the patented technology. The risk is relatively low, however.
X.	Other licenses required to practice the technology	3	*What is the possibility that there are other patents in the space which would need to be licensed to practice the technology* It is possible that there may be other patents that would need to be licensed to implement a complete system, as claimed in the '850 patent.
XI.	Industry standardization	3	*Is the patent part of an industry standard (extent to which current and future products can be sold without the patent)?* While there are no industry standards that require (or make optional) the use of this technology, the breadth of the claims appear to cover many of the on-line restaurant ordering systems that have been implemented and are being used.
XII.	Commercialization A: Difficulty of Implementation in Products	4	*How much time is required to implement the technology?* Implementation of the technology in a web application should be very straightforward and not require a substantial investment in R&D or infrastructure. A full system should be able to be implemented in less than 6 months.
XIII.	Commercialization B: Technical Know-how Requirements	5	*What degree of technical know-how (tacit knowledge) is necessary for implementation?* Database, web and app developers should be able to implement the technology without any additional information other than what is disclosed in the patent.

1.4.4. Market Criteria

Factor		Score (1-5)	Comments
I.	Value Contribution	3	*What is the contribution to profit margins from integrating the covered technology (value addition)?* A discrete analysis of the profit margin contributions is not easily determinable in aggregate as related to the '850 patent. However, anecdotal evidence of increases in revenue and operation efficiencies at restaurants that utilized point-of-sale (POS) software services is numerous in example. In general, consumers prefer the ease of use of POS ordering systems, particularly younger generations that are inclined to order "take away" or "to-go" meals off their smartphone or tablet.
II.	Manufacturing cost savings	2	*What is the manufacturing cost saved when implementing the patented technology?* Operational efficiencies through the use of POS services will lead to cost savings, but the results will not be easily measured. See www.trycaviar.com that includes real time GPS, ease of ordering in a group from multiple devices to one ticket, etc.
III.	Product differentiation	3	*What is the patent's contribution to product differentiation (extent to which it adds highly desirable features that distinguish it from similar products)?* The patent features provide increase ordering efficiency, but stops short of some of the unique features and services provided by current POS offerings.
IV.	Regulatory Requirements	3	*Do any regulatory barriers to commercialization exist in target markets?* As a software intensive business, formal regulation is increasing particularly in the realm of privacy concerns. As the POS service becomes more ubiquitous, industry players have increasing responsibility for data and system security, particularly as related to transactions that occur in via cloud computing.
V.	Replacement Cost	5	*What is the replacement cost (cost to integrate alternative technology fulfilling similar function)?* Based on the claims construction of the menu ordering system from a wireless handheld device, there seems to be few alternatives to the use of the '850 patent. There may be some alternative methods, but it may be difficult to achieve. Given the litigious nature of the '850 patent, the outcome of litigation could have a significant impact on the value of the patent (both up or down) relative to other patents in the space.
VI.	Additional R&D Requirements	4	*What are the expected costs of future technology development?* Market research shows that consumers are quick to adopt technology related to POS and reservation systems, particularly through the use of smartphones and tablets. According to the National Restaurant Association (NRA) 20% of consumers use technology when selecting a full service restaurant. In most instances, the development of this technology can be outsourced by restaurants to third-party service providers. Larger chains may choose to build systems in-house with the hopes that the ROI will be achieved through higher scale.
VII.	Market Size	5	*What is the market size for products currently using the covered technology (annual product sales revenue)?* "According to the NRA, the restaurant industry is a $684 billion industry that employs over 13.5 million people with almost a million different locations throughout the United States. The '850 patent is applicable to the point-of-sale (POS) software support and services industry in addition to the downstream industry of actual restaurants. 1) The POS industry is estimated to be a $1.3B industry. Of that, food service is estimated to be 16% of the total, meaning POS within foodservice is approximately $215M market with estimated growth between 3% to 4% p.a. 2a) Chain restaurants (e.g. DineEquity, Darden Restaurants, etc.) are fairly fragmented and represent almost $100 billion of the industry's revenue. 2b) Quick service restaurants (e.g. McDonald's, YUM Brands, Chipotle, etc.) are also fairly fragmented and represent almost $200 billion of the industry's revenue. "
VIII.	Duration of product sales	5	*What is the forecasted duration of product sales?* The need for online ordering and reservation systems is not expected to abate, but rather continue to evolve and grow. Companies like Open Table, Grubhub, and TryCaviar are regularly innovating the way in which people order meals or make reservations online. The growth in business will certainly outlast the term of the '850 patent.

Factor		Score (1-5)	Comments
IX.	**Market direction**	3	*What is the market direction (growing, declining) for products currently using the covered technology?* The industry as a whole is likely to see low digit growth with a variety of growth rates by the individual players. While larger restaurants and chains may choose to build their own POS and reservation systems, the fragmented affiliations within the industry will likely see most restaurants opting to outsource their systems to third-parties.
X.	**Life expectancy of the technology in the market**	3	*What is the life expectancy of the patented technology in the market (time until other patents provide better alternatives)?* "The '850 patent has foundational ideas related to using a central processing unit to list menu options to a handset (or equivalent). Once the consumer selects their order, the information is relayed to a communication system. Regardless of enhancements to current or future developed technology or software, the basic tenants of menu ordering over a wireless handheld device is unlikely to change. That said, however, the impact of Alice v. CLS Bank is a legitimate issue related to the potential life expectancy of the patent. Further, the litigious nature of the '850 patent increases the scrutiny these patents will receive. If validity is affirmed, the life will be long. If the patent is invalidated, the value will decline to nil. "
XI.	**Market fragmentation/competition**	4	*What is the market fragmentation/competition for products using the covered technology?* "There are at least 20 major POS operators in the restaurant software system industry. These companies are growing at a faster rate than the restaurant industry and have a few key players that have grown at a tremendous rate from start-up organizations to major market players with significant market adoption. The restaurant industry is highly fragmented with the vast majority of restaurateurs being small business owners. That said, numerous large industry players are available to license the technology. "
XII.	**Marketing Options**	5	*What is the scope of marketing options for products using the covered technology?* Two industries are potential licensors of the technology: 1) POS software-as-a-service companies, and 2) the restaurant industry. The prior is likely licensing or expecting to license certain technologies for use in its business. The latter is likely less tech savvy, is typically looking for consulting services or to outsource its software services. Accordingly, the restaurant's that are building their own ordering systems may be less aware of its potential need for licensing patents and technology.
XIII.	**Commercial Potential A: Adoption in Primary Markets**	5	*To what extent is the patent likely to be integrated into other products within the designated industry? Does the patented invention form the basis for demand of the article sold or used, or of any ancillary items sold or used?* If the POS industry is considered the primary market, the use of the '850 patent is necessary to the development of a wireless ordering system.
XIV.	**Commercial Potential B: Adoption in Secondary Markets**	1	*To what extent is the patent likely to be integrated into other products outside the target industry?* While the restaurant industry is technically not a secondary market, POS software is a secondary issue to the overall industry. That said, restaurants that provide take-out or are quick-service will require the use of wireless handheld device ordering as consumers will demand the ease of use in most situations.
XV.	**Geographical coverage**	2	*Is the patent protected in other markets?* If the '850 patent has foreign counterparts, the market revenues estimated here will increase significantly. Given international issues related to software patents, however, the case for licensing the '850 international equivalents may be more difficult.

1.4.5. Legal Criteria

Factor		Score (1-5)	Comments
I.	File History Analysis: General	4	*Review of office actions, rejections, appeals, timeline, estoppels* 102(e) (pre-AIA) and 103(a) rejections were overcome with claim language features that describe information management, synchronizing of generating and transmitting menus, a sub-modifier menu stored on a data storage device, a displayable window on a GUI, application software for generating a second menu from a first, and transmitting the second menu to a wireless handheld device or webpage. To the extent Ameranth distinguished over the prior art with these features, the scope of the patent will be limited.
II.	File History Review B	1	*Are there issues of priority of another patent application or of patent interference?* There are no issues in the file history of priority of another patent that are not overcome with claim language amendments. However, an interference action brought by IPDEV Co. seeks adjudication of priority of its 7,738,449 and 5,991,739 over the '850 patent. Docket No. 3:14-cv-01303 (S.D. Cal. May 27, 2014).
III.	File History Review C	5	*Are there issues of patent exhaustion or application of the first sale doctrine that would limit enforceability of the patent?* Review of the file history reveals no issues of patent exhaustion or bars via the first sale doctrine that would limit enforceability.
IV.	File History Review D	5	*Are there issues of enforcement due to expiration of the patent or the application of a statute of limitations barring recovery of damages for infringement of the patent?* Review of the file history reveals no issues of enforcement arising from patent expiration or statute of limitations bars.
V.	Specification Review A: Definiteness and Enablement	5	*How well does the written description of the invention satisfy the requirements of definiteness and enablement?* Claims provide reasonable certainty as to the claim scope; the best mode is stated; multiple embodiments are explained and claim language is subject to broader interpretations based on the specification (e.g. construction of "menu" and display and transmission option), though "hospitality applications" could be better defined.
VI.	Specification Review B: Patentability	1	*Are there issues of the subject matter of the invention not being patentable, or of public policy disfavoring enforcement of patents in such area?* Yes, these claims are likely subject to Alice v. CLS Bank scrutiny. Specification language that refers to improved systems over paper-based ordering is particularly unhelpful.
VII.	Re-examination Analysis	1	*Has the patent been reexamined?* No record of re-examination proceedings.
VIII.	Scope of Claims A: General	3	*What is the scope of the claims of the patent?* The claims are reasonably broad, though each independent claim contains certain narrowing language. For example, claim 1 limits display of menus to a "hierarchical tree format" and claim 12 limits use of the system to use on a wireless handheld device.
IX.	Scope of Claims B: Claim construction issues	4	*Are there claim construction issues or Summary Judgment that limited the scope of claims?* Yes, a court has ruled on claim construction in at least two cases (Ameranth v. Menusoft Systems Corp et al, Docket No. 07-cv-0027, E.D. Tex; and Ameranth, Inc. v. Par Technology Corp et al, Docket No. 10-cv-00294, E.D. Tex). Several terms were construed in each and some against Ameranth's construction positions. Preclusive effect should be considered with respect to future defendants and the claim construction positions Amaranth would take. Notably, since these claim construction rulings, Ameranth has filed dozens of additional litigations which have settled (under unknown terms).
X.	Scope of Claims C: Doctrine of Equivalents issues	5	*Is there a requirement to rely on the doctrine of equivalents to assert the patent against alleged infringers?* No, infringement claims against defendants are direct/indirect infringement.
XI.	Scope of Claims D: Divided infringement issues	3	*Are there issues of divided infringement that would limit enforceability of the patent?* Independent claims are system claims. An indirect infringement argument will likely be relied on as customers are those who use the entire system.
XII.	Patent Term Remaining (useful life)	3	*What is the remaining useful life of the patent?* Estimated patent expiration date is September 21, 2019.

Factor		Score (1-5)	Comments
XIII.	Litigation history	4	*Has this patent been litigated before?* Yes, this patent has extensive litigation history including dozens of defendants, most of which were combined into a single lawsuit that appears to have resulted in settlements in late 2013. Access to proprietary information would be beneficial to the reviewer, but we assume that multiple settlements have resulted from these lawsuits, though we cannot speculate as to the settlement terms.
XIV.	Litigation Risk	5	*Do Assignees in this technology/product/licensor area tend to favor litigation?* Assignee Ameranth is very litigious; litigation targets also appear to favor litigation as at least one declaratory judgment action has been filed against Ameranth and another interference action alleging a claim of priority.

1.4.6. Summary

Summary	Number	Comments
Acceptance-Rejection Criteria:	12	Go-No Go
Technical Criteria:	13	
Market Criteria:	15	
Legal Criteria:	14	
Total Scored Factors:	42	

US6384850 PatentBooks Criteria	Score[1]	Comments/Ave.
Acceptance-Rejection Criteria:	N/A	Accepted
Technical Criteria:	90463.9175	
Market Criteria:	93162.3933	
Legal Criteria:	92082.2103	
Total Score (Average):	91902.8403	

[1] Score is computed from the raw Evaluation scores using a ratio algorithm.

1.4.7. Potential Licensees

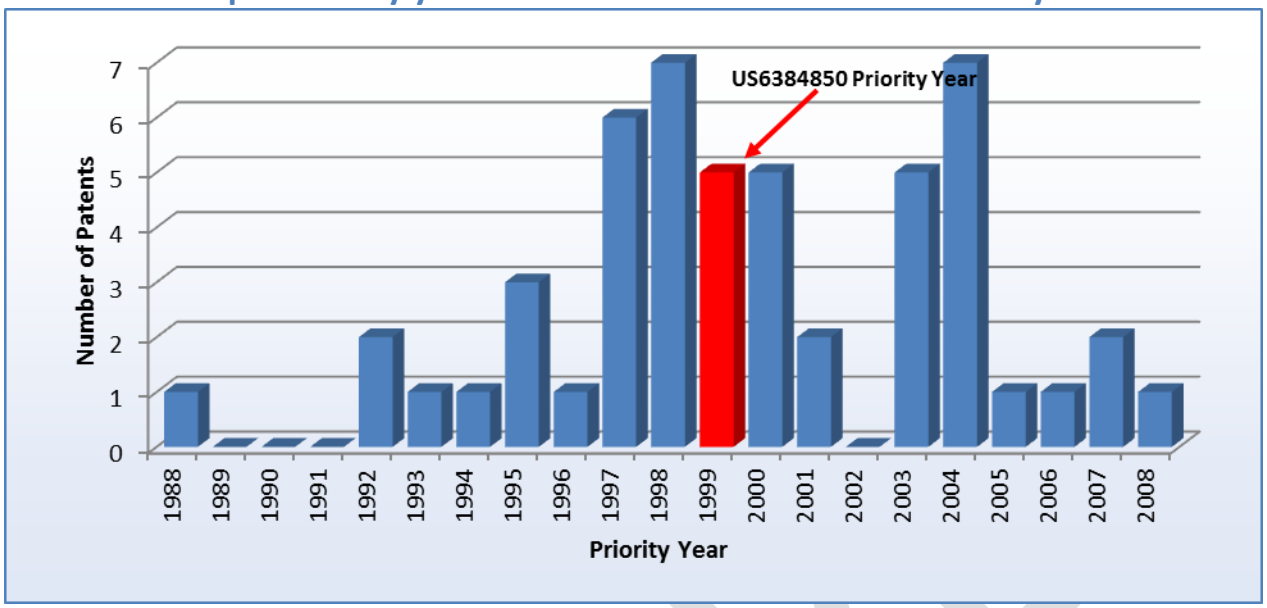
Agilysys, Inc.	Eventbrite Inc	MOBO Co., Limited	QuikOrder, Inc.
Apple Inc.	Exit 41 LLC	Monkeymedia, Inc., Texas	Sabre Corporation
Atx	Expedia, Inc.	Munchaway LLC	Seamless North America, LLC
Best Internationalkk	Genesis Gaming Solutions Inc	Naama Networks Inc	Starbucks Corporation
Best Western International, Inc.	GrubHub, Inc.	Netwaiter, L.L.C.	Starwood Hotels & Resorts Worldwide, Inc
California Commerce Club Inc	Hawaiian Gardens Casino, California	Normandie Club, L.P. Normandie Club Incorporated (General Partner organized in California)	Subtle Corporation, The
Cash Register Sales and Service of Houston	Hilton International Co. d.b.a. Vista International	Normandie Club, L.P.	The Blackstone Group L.P.
ChowNow LLC	Hollywood Park Casino Inc	Oracle Corporation	The Ritz Hotel, Ltd.
Club	Hotel Tonight Inc	Orbitz Worldwide, Inc.	TicketBiscuit, LLC
Comcast Corporation	Hyatt Hotels Corp	ORDR.IN, Inc.	Ticketfly Inc
Commerce Casino Inc	IAC/InterActiveCorp	O-Web Technologies, Ltd.	TicketMob LLC
Does Co.	It Casino Solutions LLC, California	Papa John's USA Inc	Usablenet, Inc.
Domino s LLC	Kudzu Interactive, Inc.	Papa s Hair Company, Inc.	White Mountains Insurance Group, Ltd.
eBay Inc.	LaughStub LLC	PAR Technology Corporation	Yum! Brands, Inc.
El Dorado Corp., Taiwan	Live Nation Entertainment, Inc.	Partech Electronics Ltd	
El Dorado Enterprises Inc	Marriott International, Inc.	Penn National Gaming, Inc	
EMM8, Inc.	Menusoft Systems Corporation	priceline.com Incorporated	

1.4.8. Revenue Forecast

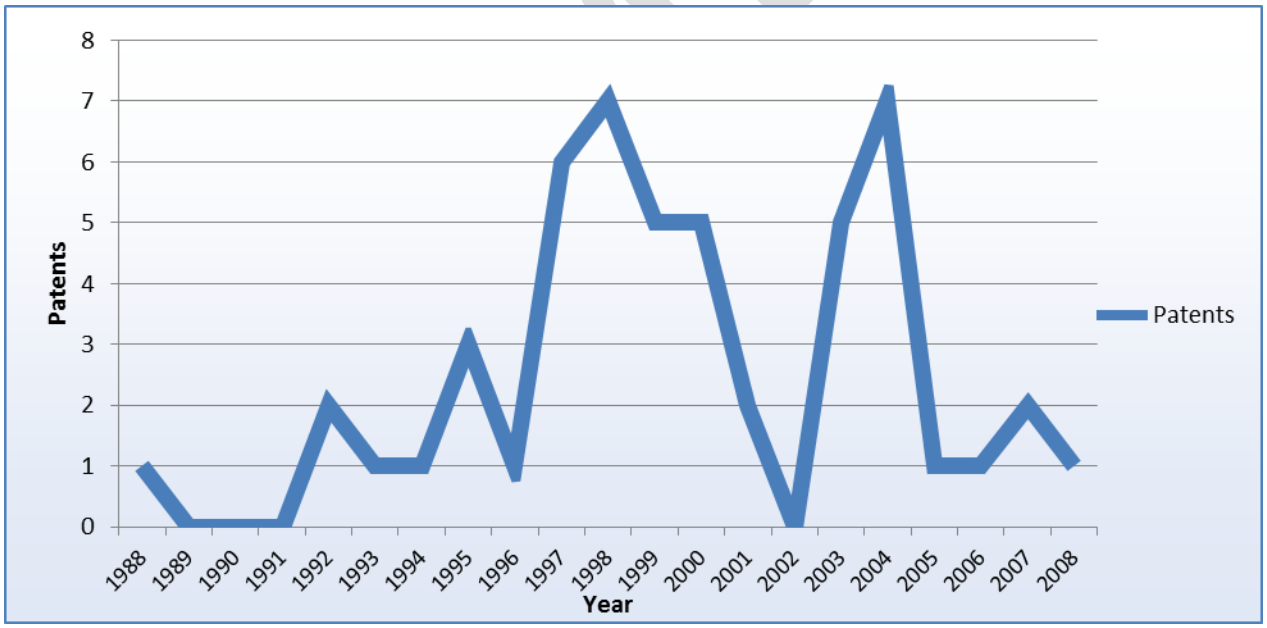
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
POS Revenue Forecast		$1,110.4	$1,145.1	$1,171.6	$1,186.9	$1,141.5	$1,186.5	$1,232.7	$1,287.7	$1,321.3	$1,343.3	$1,369.7	$1,393.2	$1,424.2	$1,439.9	$1,476.0
Food Service POS Revenue	16%	177.7	183.2	187.5	189.9	182.6	189.8	197.2	206.0	211.4	214.9	219.2	222.9	227.9	230.4	236.2

1.5. Analytics

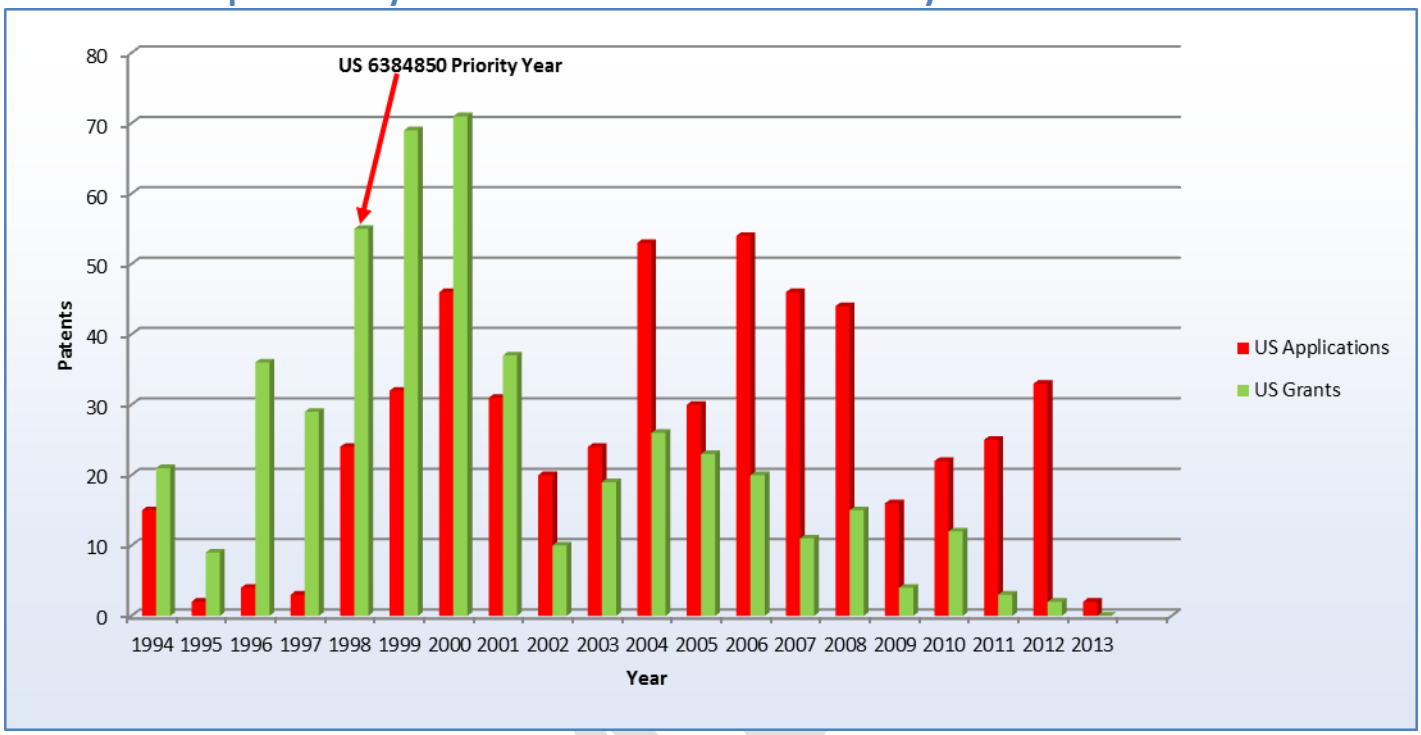
1.5.1. Patents per Priority year Based on US Classification Similarity



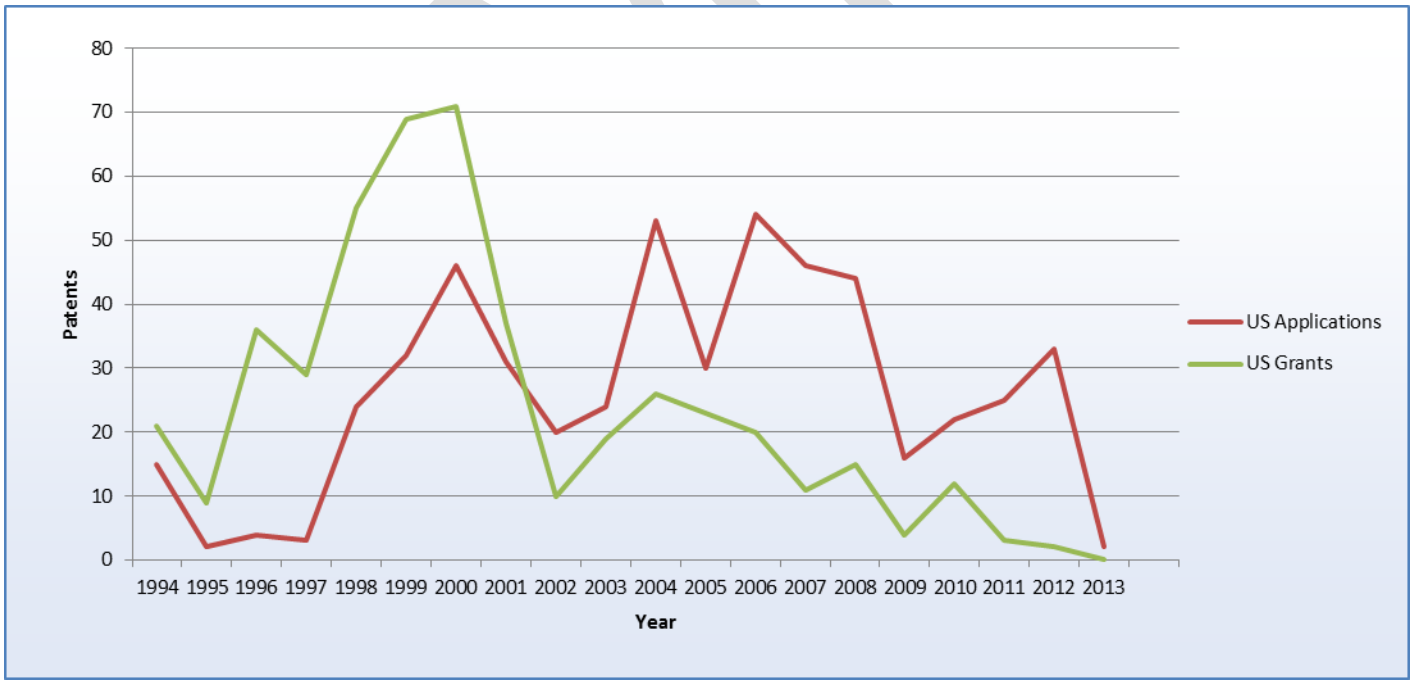
Patents per Source per Priority Year



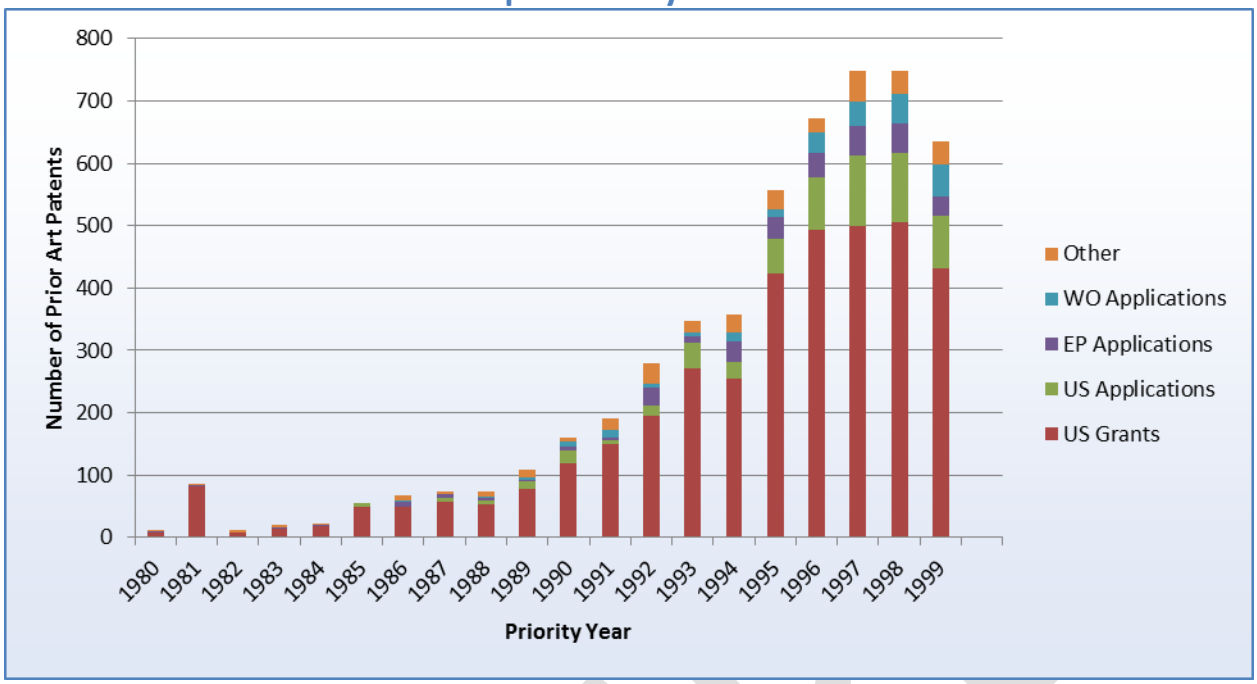
1.5.2. Patents per Priority Year Based on Semantic Similarity



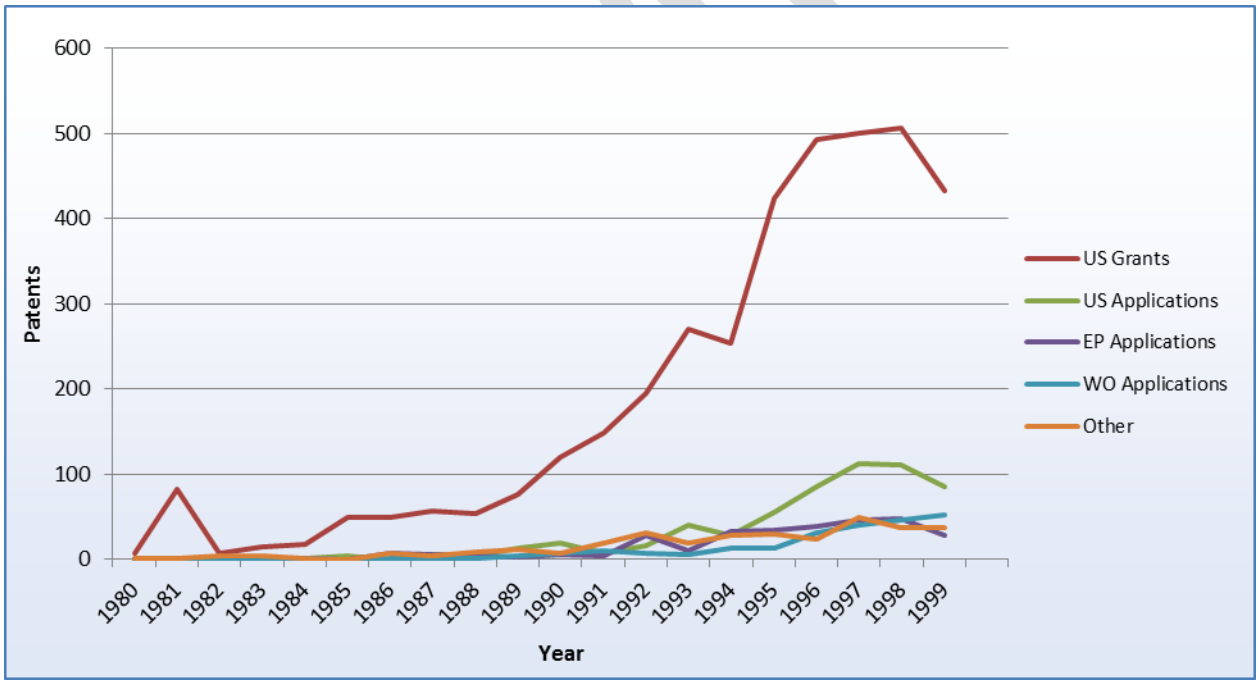
Patents per Source per Priority Year



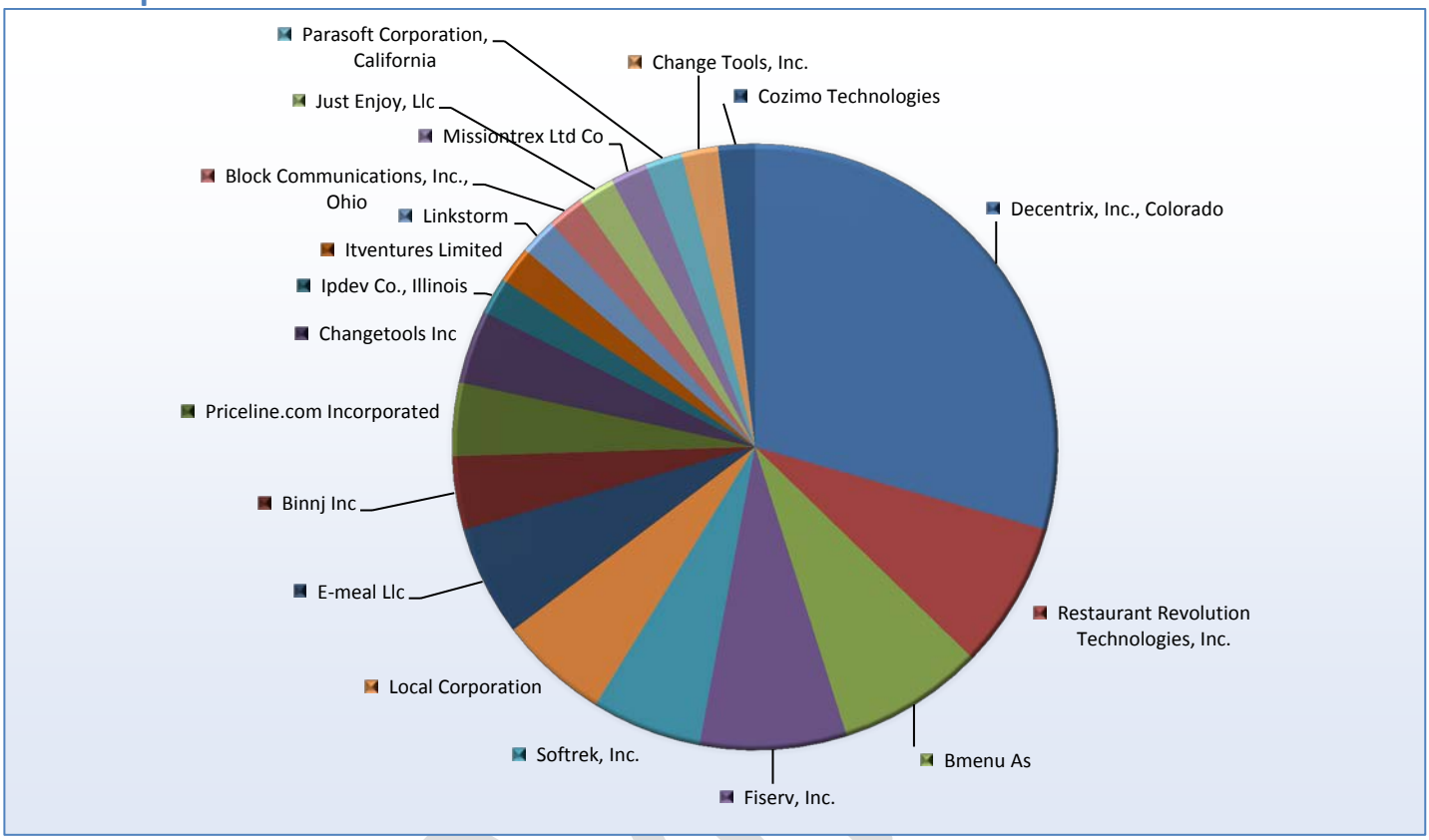
1.5.3. Possible Prior Art Patents per Priority Year



Patents per Source per Priority Year



1.5.4. Top Potential Licensees Based on Semantic Relevance and Patent Count



1.5.5. Companies Having Similar Technology Based on Classification Similarity Analysis