Invest in Growth
How LOT Network Addresses the PAE Problem

Ken Seddon
CEO, LOT Network
August 30, 2018
Introduction of Ken Seddon

25 Years of Engineering and IP experience

- BS. EE Georgia Tech, Master’s Device Physics from ASU, JD from ASU
- Motorola: engineer and patent prosecution
- Intel: Asst. Director of Patents - patent prosecution and licensing
- Numonyx: Chief IP Counsel
- Micron: Asst. General Counsel
- Apple: Strategic patent licensing, patent purchasing, NPE defense
- ARM: VP of IP
Why you should join LOT Network

$29 Billion
PAEs - hurting innovation

Patent lawsuits have jumped 500% between 2005-2014

AIA

New pleading requirements

Operating Companies
15.9%

PAE 84.1%

PAEs are responsible for 84% of high-tech patent litigation in the US!7

PAEs drain ~$80B from the US economy per year, or $1.5B a week10

Dan McCurdy 2017 SAS NPE Forum and RPX

Average
Where are the PAEs getting their patents?

- Companies provide PAEs with most of the patents
  - Operating Company: 81%
  - Inventor/University: 19%

81% of patents acquired from PAEs come from companies⁷
2014: LOT Network is formed as the solution

Board of Directors

redhat.  Canon  Google

Dropbox  PURE STORAGE

SAP

LOT Begins
LOT Agreement is scaling

Board of Directors

- redhat
- Canon
- Google
- JPMorgan Chase & Co.
- Dropbox
- TESLA
- SAP
- PureStorage

LOT Network
Today: LOT Includes the most sophisticated Global IP holders across all industries.
Who is joining and why?
Some of LOT’s 270+ members

Software:
- Red Hat
- Google
- Salesforce
- Oracle
- Dropbox
- Facebook
- SAS
- Slack
- SAP
- GitHub
- NetApp
- Atlassian

Hardware:
- Canon
- Lenovo
- Cisco
- Lumentum
- Seagate
- Compal
- GoPro
- VTech
- Pure Storage
- Laird Technologies
- Logitech
- Arista
- LOT Network
Some of LOT’s 270+ members

Automotive:

- Daimler
- Ford
- Nissan
- Mazda
- Honda
- Kia
- GM
- Subaru
- Garmin
- Uber
- Denso
- Hyundai
- Tesla
- TS Tech Americas, Inc.
- VW
- Waymo

Financial Services

- JPMorgan Chase & Co.
- Alibaba.com
- Fidelity Investments
- Wells Fargo
- TD Bank
- BMO Harris Bank
- American Express
- Nationwide
- FIS
- Ant Financial
- LOT Network
- Equifax
- Square
Some of LOT’s 270+ members

Entertainment/media

Netflix  Showtime  EA Sports  Pandora  Etsy

Retail:

Alibaba.com  JCPenney  eBay  Walgreens  Newegg.com  Crate & Barrel

Target  Macy’s  Groupon  Bed Bath & Beyond  Papa John’s  Priceline

Key Others:

LotNetwork  SpaceX  Boeing  Covestro
What about *small* companies?

- Startups and small companies are softest targets for trolls
  - 50% of all companies sued by trolls make less than $10 million/year
  - Over 50% of all patent lawsuits concern software patents†

1/3rd of LOT Members are start-ups
Technology

Tech Giants Are Offering Startups Free Patents in a Bid to Foil Lawsuits

By Susan Decker
May 10, 2018, 8:30 AM MST

Non-profit group seeks to keep members out of litigation
Idea comes from lessons learned after dot-coms crashed

Red Hat Inc. and Lenovo Group Ltd. are giving away free patents to any startup that joins a group of more than 200 companies devoted to keeping its members and their patents out of court.

It’s a carrot to entice startup companies to join the LOT Network, a non-profit created by Alphabet Inc.’s Google and Canon Inc. four years ago to combat litigation by patent assertion companies, known derisively as “trolls,” that don’t make any products but seek royalties by challenging patents. By joining LOT, a company agrees that if they sell patents to such firms, all group members will have a free license to them.

“You’re binding yourself to the mast and saying ‘I’m not going to give in to..."
What is LOT Network?

LOT - community providing PAE immunization

Non-Profit  Community  Protecting Innovation
How LOT Protects Members

A license to the other members of LOT Network that applies ONLY on and after transfer of the particular patent to a patent assertion entity (License on Transfer - LOT)
No effect on traditional uses of patents

LOT - community providing PAE immunization
No effect on traditional uses of patents

LOT Members involved in recent IP disputes:
- Cisco
- Arista
- Waymo
- Uber
- Google
- Oracle
No Burden to being a member

Don’t have to list patents

Don’t have to give notice

Don’t have to report
A patent holder, in combination with its affiliates, that generates more than 50% of its gross revenue from patent assertion.
How LOT works
Illustration of the LOT Agreement's Operation

**Today:** Companies 1 and 2 join the LOT Network.

**Tomorrow:** Company 2 sells a patent to a Patent Assertion Entity.

**Future:** LOT membership immune from patent, regardless of the owner.

Legend: $ = Transferred patent(s)

- Over 1,198,000 WW assets
- Over 250,000 US assets

License to LOT membership automatically becomes effective.
Illustration of the LOT Agreement's Operation

**Today:** Companies 1 and 2 join the LOT Network.

Over 1,198,000 WW assets
Over 250,000 US assets

**Legend:**

= Transferred patent(s)

**Tomorrow:** Company 1 sells a patent to an Operating Company

License to LOT membership automatically becomes effective when transferred to PAE.
Illustration of the LOT Agreement's Operation

**Today:** Companies 1 and 2 join the LOT Network.

**Over 1,198,000 WW assets**
**Over 250,000 US assets**

**Tomorrow:** Company 2 becomes an assertion entity

**License to LOT membership automatically becomes effective.**
LOT Network is non-profit: Annual Fee

<table>
<thead>
<tr>
<th>LOT Member’s Annual Revenue</th>
<th>Annual Membership Fee</th>
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</thead>
<tbody>
<tr>
<td>Less than $5 million</td>
<td>Free</td>
</tr>
<tr>
<td>Between $5 and $10 million</td>
<td>Free</td>
</tr>
<tr>
<td>Between $10 and $25 million</td>
<td>Free</td>
</tr>
<tr>
<td>Between $25 and $50 million</td>
<td>$5,000</td>
</tr>
<tr>
<td>Between $50 and $100 million</td>
<td>$10,000</td>
</tr>
<tr>
<td>Between $100 million and $1 billion</td>
<td>$15,000</td>
</tr>
<tr>
<td>Greater than $1 billion</td>
<td>$20,000 (cap)</td>
</tr>
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</table>
LOT provides value to its members
Analysis of assets litigated by PAEs
What types of patents did PAEs use to sue in the US (1,796 litigations)

![Bar chart showing the number of patent assets for various patent classes.]

- **G06F** - Digital Data Processing: 186
- **H04L** - Transmission of Digital Information: 130
- **H04W** - Wireless Communication Networks: 103
- **H04N** - Pictorial Communication: 85
- **G06Q** - Data Processing: 55
- **H01L** - Semiconductor Devices: 54
- **H04M** - Telephonic Communication: 45
- **G08B** - Signalling systems: 18
- **G06K** - Data Recognition: 16
- **G06T** - Image data processing: 13

**Patent Classes:**
- G06F - Digital Data Processing
- H04L - Transmission of Digital Information
- H04W - Wireless Communication Networks
- H04N - Pictorial Communication
- G06Q - Data Processing
- H01L - Semiconductor Devices
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- G06T - Image data processing
LOT has thousands of patents in the same areas as those PAEs are asserting in the US

LOT has over 461,000 assets in the exact areas that PAEs are asserting in the US. (1,198,000+ Overall)

# of patent assets

G06F-Digital Data Processing
H04L-Transmission of Digital Information
H04W-Wireless Communication Networks
H04N-Pictorial Communication
G06Q-Data Processing
H01L-Semiconductor Devices
H04M-Telephonic Communication
G08B-Signalling systems
G06K-Data Recognition
G06T-Image data processing
Analysis of assets bought
Patent sales: Forecast of future litigation

Top 15 patent categories for 15,572 assets sold

Data from: AlliedSecurityTrust
LOT has over 687,000 assets in the exact areas as the patents bought in 2015 (1,198,000+ Overall)

**Top 15 patent categories for 15,572 assets sold in 2016**

- **G06F**: 98,282
- **H01L**: 12,108
- **H04L**: 40,331
- **G11C**: 46,539
- **H04N**: 13,000
- **H04W**: 11,619
- **G06Q**: 21,895
- **G02F**: 4,927
- **H04B**: 35,624
- **H03K**: 9,130
- **G09G**: 4,700
- **G02B**: 14,086
- **A61B**: 6,098
- **G01R**: 3,212
- **G06K**: 7,973
- **H03F**: 1,614
- **H03E**: 164

*Data from: AlliedSecurityTrust*
Yeah, but does LOT REALLY work?
LOT Members have divested assets, but...

- Over 26,000 have left LOT Network
- 35 of those assets have landed in the hands of 8 different PAEs
- One of those PAEs is Intellectual Ventures

No LOT Member has ever been sued by an asset that has left the Network

Data from: INNOGRAPHY
Are you an Optimist?
Are you an Optimist? LOTimist?
LOT Members are Optimists

The “LOT Member Index” = all publicly traded members of LOT

- includes those that have struggled recently (e.g. retailers)

LOT members have out performed the S&P 500® by 90% in last year
Monetizers

The “Monetizers index” = Most active monetizers in recent years

- Qualcomm, Philips, Yahoo, IBM, Ericsson, Nokia, Technicolor, Sony, Tivo, Dolby

Monetizers lag S&P 500® by 87% in the last year

![Graph showing the performance of Major IP Monetizers and S&P 500® over the past few years.]
Are you a LOTimist?
<table>
<thead>
<tr>
<th>Security</th>
<th>Currency</th>
<th>Price Change</th>
<th>Total Return</th>
<th>Difference</th>
<th>Annual E</th>
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<tbody>
<tr>
<td>IP1 Index</td>
<td>USD</td>
<td>2.31%</td>
<td>2.31%*</td>
<td>-33.52%</td>
<td>1.16</td>
</tr>
<tr>
<td>SPX Index</td>
<td>USD</td>
<td>30.55%</td>
<td>35.83%</td>
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<td>16.67</td>
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<tr>
<td>IP2 Index</td>
<td>USD</td>
<td>82.55%</td>
<td>82.55%*</td>
<td>46.71%</td>
<td>35.39</td>
</tr>
</tbody>
</table>

*No Dividends or Coupons

Graph showing comparative returns over different periods.
Significant Value in adding suppliers to Membership

Significant value in adding some Suppliers

Both Suppliers and Customers get protection from patents outside their bilateral ecosystems
Why LOT is good for BUYERS

- Can trust suppliers
- Help save $29 billion
- Stabilize supply chain
Why LOT is good for SUPPLIERS

- Reduce indemnification costs
- Become “preferred” supplier
- Gain access to IP
- Program voluntary
RPX price paid for patents purchased from open market declining

Average and Median RPX Price Paid per US Patent

Source: RPX Research

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Backup
References

1. **Patent Freedom**
   - https://www.patentfreedom.com/about-npes/litigations/


3. **RPX 2014 Litigation Report**.

4. **US Patent and Trademark Office**

5. **ROL Group**

6. Linda Biel, AST

7. Dan McCurdy, **RPX presentation at 2017 IP Counsel Cafe spring meeting, Palo Alto, CA.**

8. Kevin Jakel, **Unified Patents presentation at 2015 IP Counsel Cafe spring meeting, Palo Alto, CA.**


284 Partners to License Major Aerospace Portfolio to Auto Industry

PRESS RELEASE UPDATED: MAR 14, 2017 07:37 EDT

Ann Arbor-based firm serves as the only automotive licensing agent for Boeing intellectual property

Ann Arbor, Michigan, March 14, 2017 (Newswire.com) - 284 Partners, an Ann Arbor-based intellectual property consulting firm, has become the only licensing agent within the automotive industry for Boeing’s broad IP portfolio.

"Boeing leadership in the aerospace, defense, space and security markets has resulted in an intellectual property portfolio that has broad application to the current and future automotive landscape. Whether it is weight savings, collision avoidance or ad-hoc networking, Boeing has unique assets that are important to companies within the automotive industry," said Mike Lasinski, CEO and Managing Director of 284 Partners, LLC.

Boeing offers extensive technologies useful to auto manufacturers, suppliers, specialty component makers and mobile communications firms seeking to gain competitive advantage over their rivals.
Introducing IPwe

While tempted to just trade, at some point in 2016, it occurred to me that blockchain could have a massively beneficial impact on the patent industry and patent asset class. … I began assembling the team of programmers, data scientists, communications specialists and patent wonks we would need to implement and create a new business model that intelligently captures the power of blockchain in the patent space. … We have been fortunate to obtain strong financial backing … It is a curious path how a collection of misfit trolls, geeks and wonks ended up here—but we are going to crush it and make a fortune, improve the patent asset class and benefit the patent ecosystem and society at the same time.

Erich Spangenberg
Co-Founder
els@ipwe.com
Reasons to join LOT Network
Benefits for startups

It’s free for companies with up to $25 million in annual revenue

You become immunized to 1.1 million patents

Opportunity to be an equal with industry leaders

And now free patents!
Tech Giants Are Offering Startups Free Patents in a Bid to Foil Lawsuits

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“You’re binding yourself to the mast and saying ‘I’m not going to give in to
Free Patents for startups

Canon, Lenovo, Red Hat, Google, SAP, Dropbox, GM, Ford, and other have committed to donate thousands of patents to LOT

To qualify:
  can’t be a PAE
  must have between $500k and $25M in annual revenue, OR $500k and $25M in funding over the last 18 months

You can select your technology area

LOT will recommend 5 highest rated assets available

You can pick 3
  You can earn an additional 2 more by getting a peer to join LOT

Companies that follow you into LOT are not licensed to the assets