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# How Open APIs are Transforming the Practice of IP Law

# Before We Get Started...



A link to the recording will be made available.

### **Questions**

Type in the question box and we will answer in real time or during the Q&A. Social

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# Today's Presenters...



#### **Jim Hallenbeck**

President & CEO, Black Hills IP Registered Patent Attorney



#### Manjeet Rege, PhD.

Director of Center of Applied Artificial Intelligence and Professor at the University of St. Thomas, Advisor to Black Hills IP

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#### **Thomas Marlow**

President, BHIP Renewals, CTO, Black Hills IP, Former Chief Patent Counsel, Fairchild Semiconductor Registered Patent Attorney

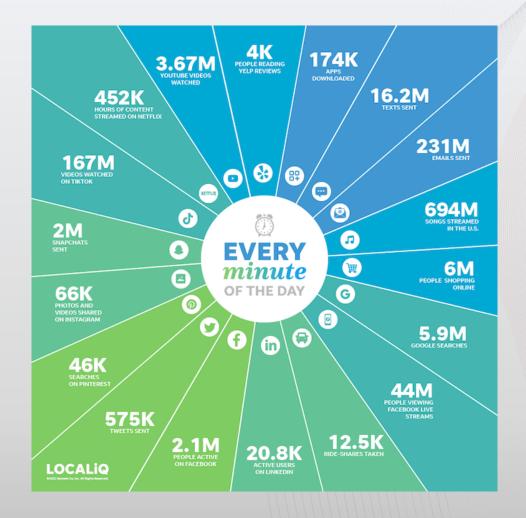




### Adam Reece

IP Automation Specialist Lead, Black Hills IP M.S. in Data Science student, University of St. Thomas

# What Happens in an Internet Minute



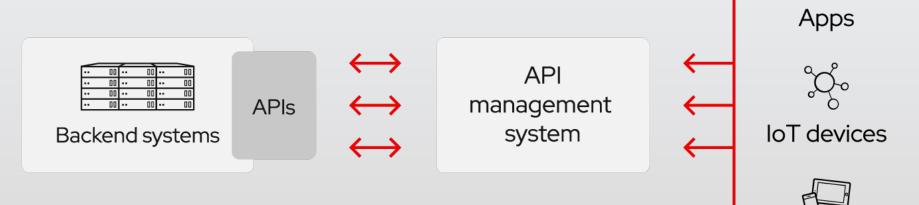
#### Made possible due to APIs

https://localiq.com/blog/what-happens-in-an-internet-minute



# What is an API?

 API stands for application programming interface, which is a set of definitions and protocols for building and integrating application software



 APIs let your product or service communicate with other products and services without having to know how they're implemented.

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https://www.redhat.com/en/topics/api/ what-are-application-programminginterfaces

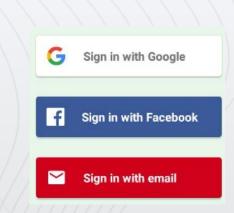
Mobile

# **API Examples**

Here are some popular examples of API uses that users encounter almost every day:

- Universal logins
- Internet of Things (IoT)
- Mapping apps
- Twitter
- SaaS applications







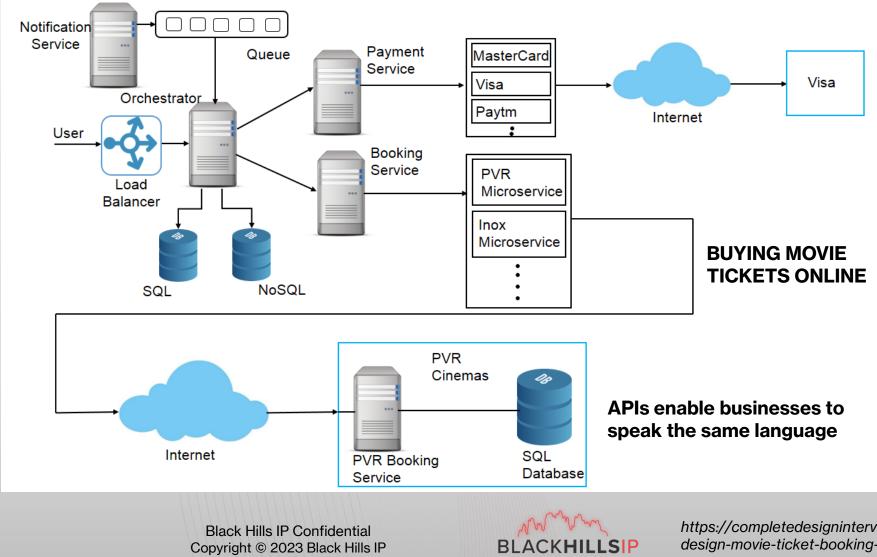






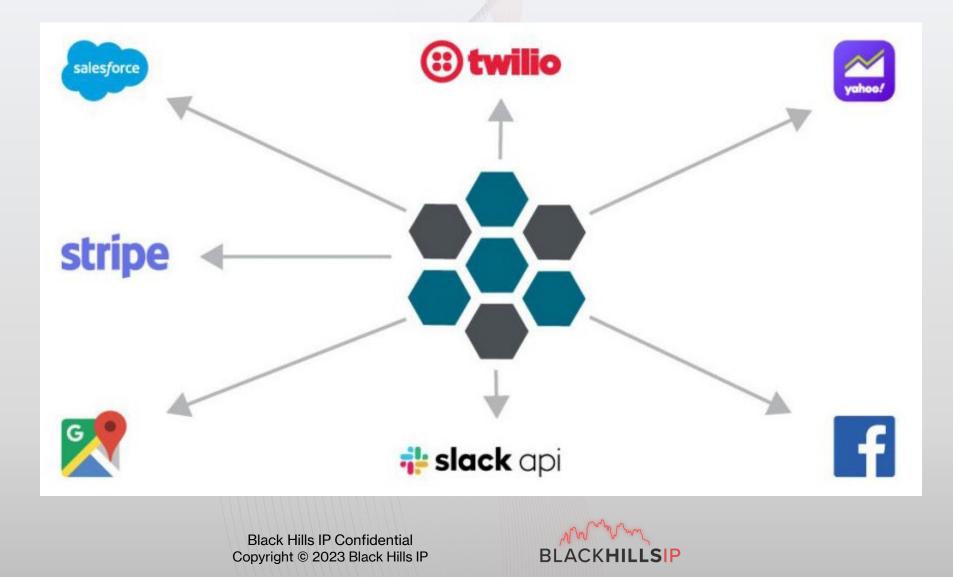
# **Twitter API**

### APIs are essentially the concierge of the digital world.



https://completedesigninterviewcourse.com/systemdesign-movie-ticket-booking-ticketmaster-bookmyshow/

# Who Creates These APIs?



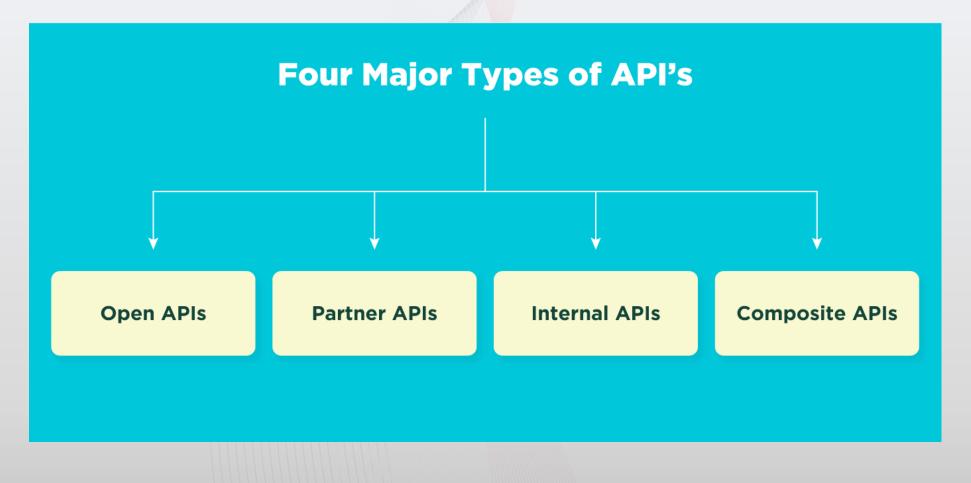
# **Benefits of API**

### **APIs offer other significant benefits to developers and organizations at large:**

- **Improved collaboration:** The average enterprise uses almost 1,200 cloud applications, many of which are disconnected.
- Accelerated innovation: APIs offer flexibility, allowing companies to make connections with new business
  partners
- **Data monetization.** Many companies choose to offer APIs for free, at least initially, so that they can build an audience of developers around their brand
- System security: APIs separate the requesting application from the infrastructure of the responding service
- End-user security and privacy: When a website requests a user's location, which is provided via a location API, the user can then decide whether to allow or deny this request



# Types of APIs



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https://jelvix.com/blog/what-is-api

## Streaming data and API's have disrupted once dominant incumbents in several large industries

### **Blockbuster**: Bankrupt

• Once a giant in the video rental industry, Blockbuster failed to adapt to the rise of digital streaming services like Netflix and Hulu

### **Borders**: Bankrupt

Online competition and the rise of e-books and digital • reading devices contributed to the collapse of this once-thriving company

### Tower Records: Bankrupt

 Streaming music and video led to the collapse of CD sales and the growth of digital platforms like iTunes, Spotify, and Pandora

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•

Hulu •

- Replaced by:
- Netflix •
  - iTunes

Spotify

- amazon Amazon
  - Spotify<sup>®</sup>

NETFLIX

iTunes

- Pandora
- - Other



BORDERS

Beyond Books







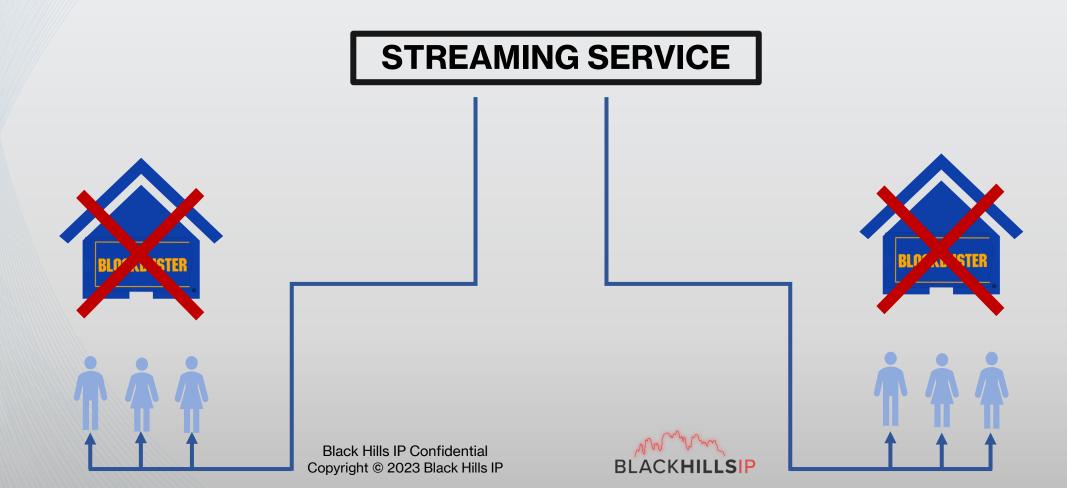
# These bankrupt companies have something in common with today's IP management ecosystem

These companies once dominated the distribution of media with a physical distribution network with "local stores" that consumers frequented for the media they wanted.



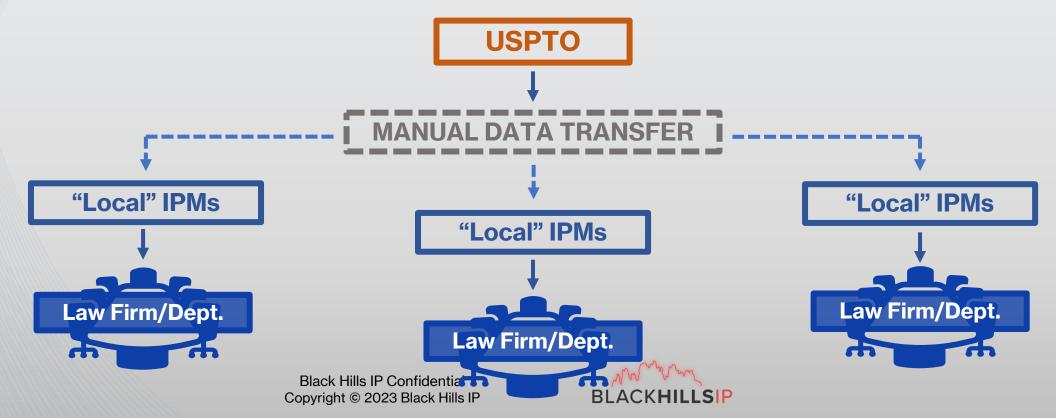
# These bankrupt companies have something in common with today's IP management ecosystem

Then they were disintermediated by streaming services:



# Today's IP management ecosystem has parallels to the now defunct "Blockbuster model"

- Historically, IP management systems (IPMs) have played a similar role, serving as a "local IP data store"
- They were the sole source of IP data for users, and for processes that depending on this data, like preparation of documents and reports

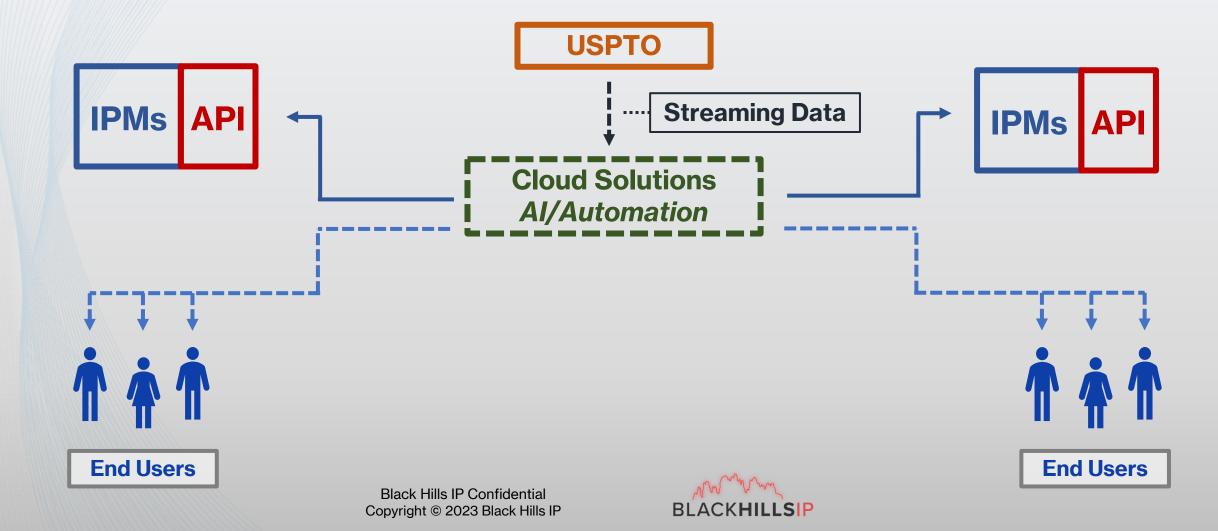


# We are rapidly evolving to a new IP ecosystem

- IP management systems are no longer the go-to gold standard for a prosecution history or bibliographic data – that has been replace by USPTO Patent Center or other countries' IP registers
- It is now possible to stream U.S. file wrapper data directly into prosecution support tools, allowing these tools to operate without connection to "local" IP management system data stores
- Moreover, the streamed data is a superior source of data for these tools, and many times richer than the data set stored in a local IP management solution



Today's IP management solutions are being "disintermediated" from the automation core of the IP solution ecosystem

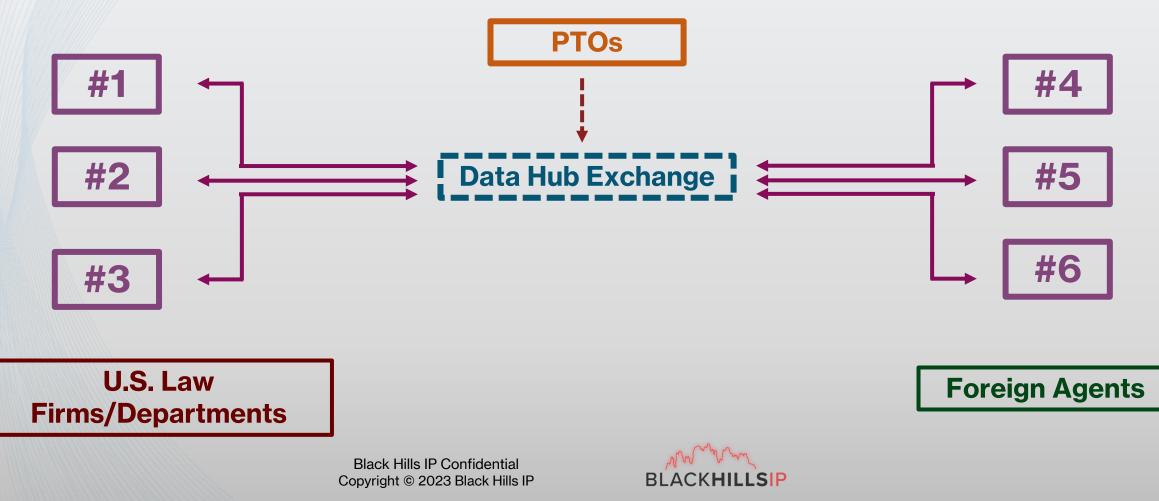


# Consequences of the "Disintermediation"

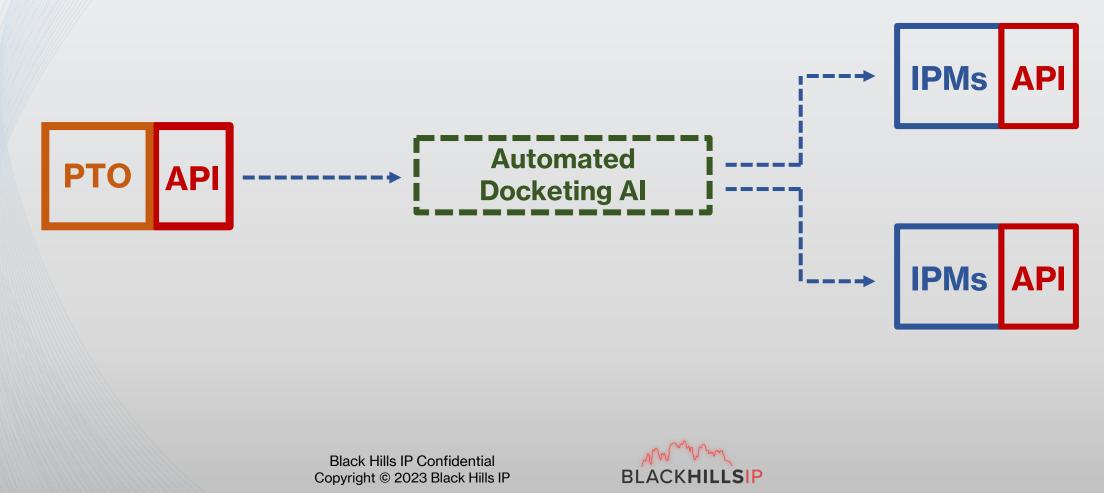
- The door is opened for accelerating innovation in IP support solutions as the IP management solution incumbents are no longer the gate-keepers to the consumers of these services
- The same way data connectivity and smart phones created a large ecosystem of app solutions, so too will the ability to stream IP data directly from the source to a whole new universe of cloud-based solutions
- This transition will be accelerated further by the available Large Language Model (LLM) – e.g. ChatGPT - capabilities



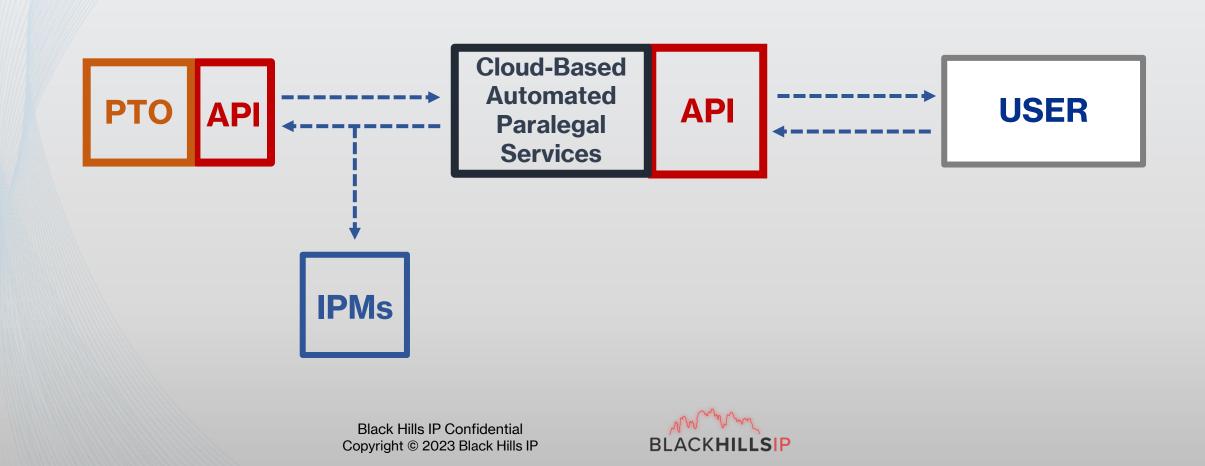
**Cloud-based structured data exchanges and communication flow management** 



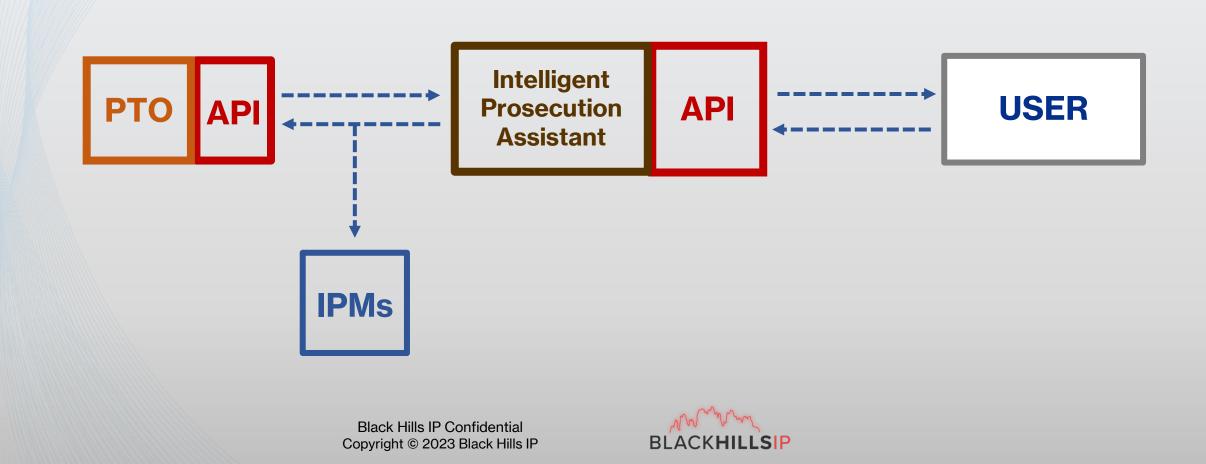
### **Automated docketing solutions**

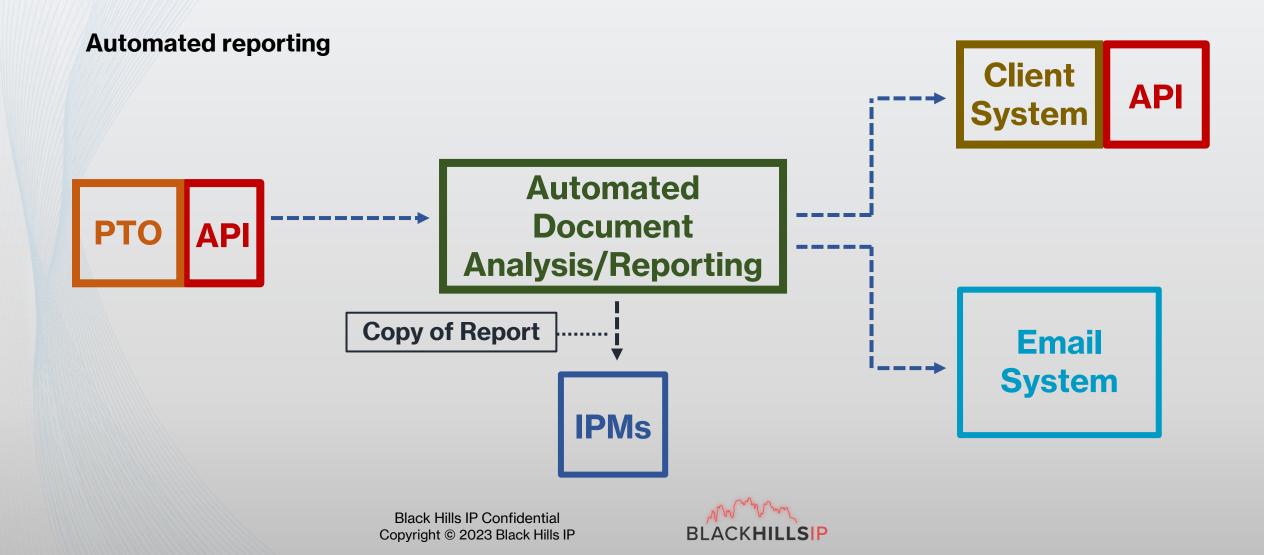


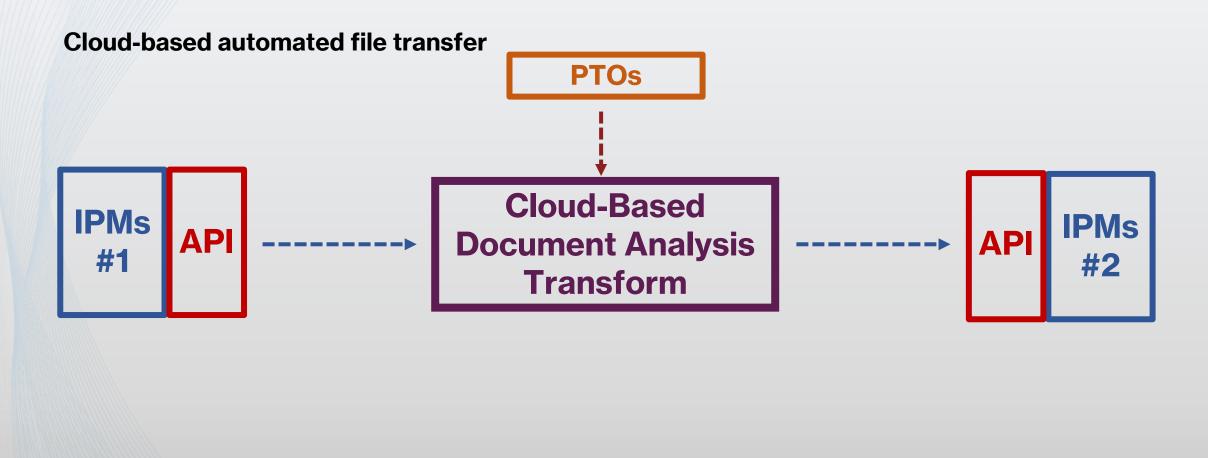
### **Automation**



### **Automation**

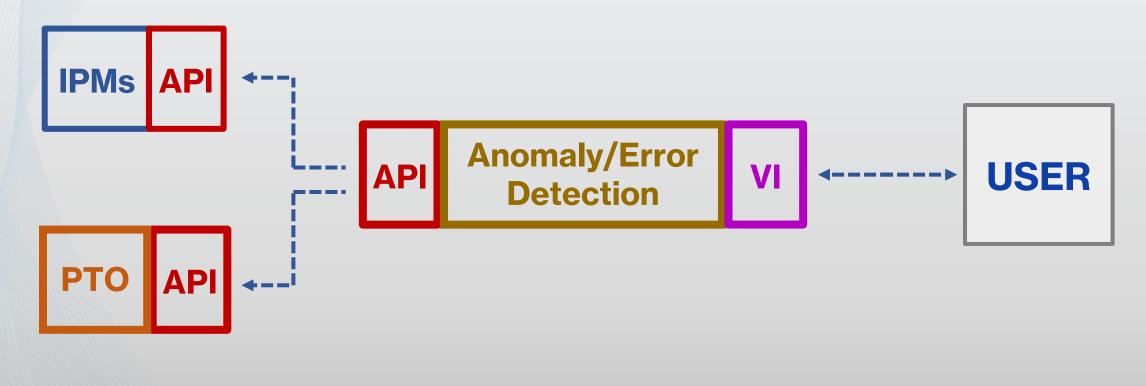






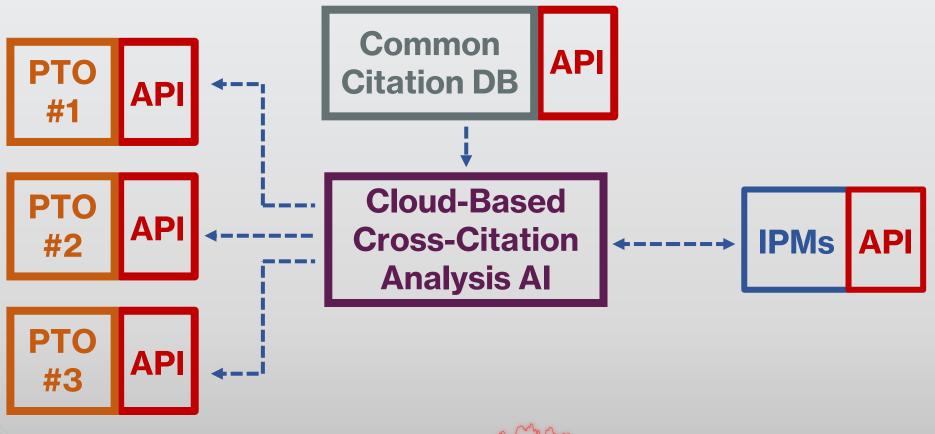


**Cloud-based AI detection of prosecution anomalies/documentation errors** 





**Cloud-based AI cross-citation analysis** 





# Impacts so far on manual labor...

 Manual docketing will soon be a vestige of the past. Cost is reduced, quality is improved, and thousands of docketing personnel will be freed from the daily drudgery of robotic work to do higher value tasks

• Paralegal tasks are quickly being eliminated.

- This task automation will continue so that paralegals spend more time on high added value tasks and less time doing tasks that are simple for automation.
- Attorney work that is ministerial, administrative or involves routine analysis will be increasingly performed by cloud automation such as ChatGPT



# Intelligent cloud services will dominate the future of law firm technology

- We are now in an era where intelligent cloud services will assume more and more tasks presently performed by humans
- These services will most rapidly displace the routine, process-driven, robotic work that is the bread and butter of off-shore entities.
- Current IP management systems will continue to serve an important but now ancillary role in the IP management ecosystem.
- Intelligent cloud systems will interact with and control these IP management systems for most routine back office tasks



# These IP Management Systems have excellent APIs and are ready for the interconnect future of IP data flows!!

- Patricia from Patrix<sup>®</sup>
- CPI from Computer Packages®
- FoundationIP, Ipfolio and IPendo from Clarivate<sup>®</sup>
- AppColl from Appcoll<sup>®</sup>



# Intelligent Cloud Services Offered by

# BLACKHILLSIP

- SureDocket<sup>®</sup> Al-powered automated docketing
- Power Prosecutor<sup>®</sup> Al-powered automated shell generation and authoring
- SureDocket<sup>®</sup> AI-powered Automated reporting
- DocketSaver® AI-powered Automated docketing error detection
- Power Prosecutor® Al-driven prosecution cost estimator
- SureDocket<sup>®</sup> Al-driven automated file history docketing breakout
- SureDocket<sup>®</sup> Automated IDS Data
  Updates



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 Accessible and flexible education for high school, college, and law school students with a focus on hands-on IP training and practical skills

 Program that provides underrepresented students with the opportunity to explore the field, to network with IP Law professionals, and to pursue a career in IP Law.



# Conclusion

