### **Cybersecurity Partnership**

## Information Session on Cybersecurity Patent Application and Examination



United States Patent and Trademark Office November 14, 2014 in Menlo Park, CA

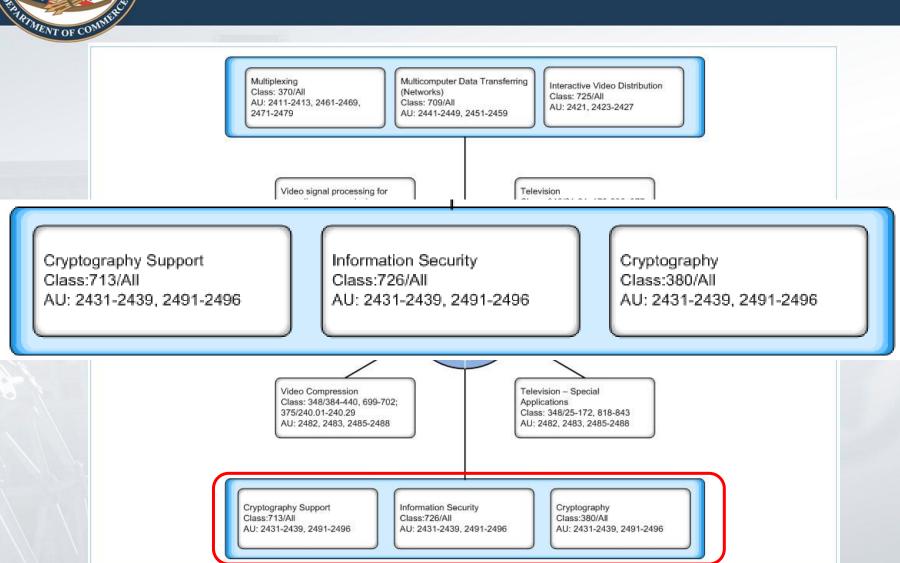


### Who Are We?

1600 Biotechnology and Organic Chemistry 1700 · Chemical and Materials Engineering 2100 · Computer Architecture and Software 2400 Networking, Multiplexing, Cable, and Security 2600 Communications 2800 Semiconductors, Electrical and Optical Systems and Components 2900 Designs • Transportation, Construction, Electronic Commerce, Agriculture, National 3600 Security, and License & Review 3700 Mechanical Engineering, Manufacturing and Medical Devices/Processes

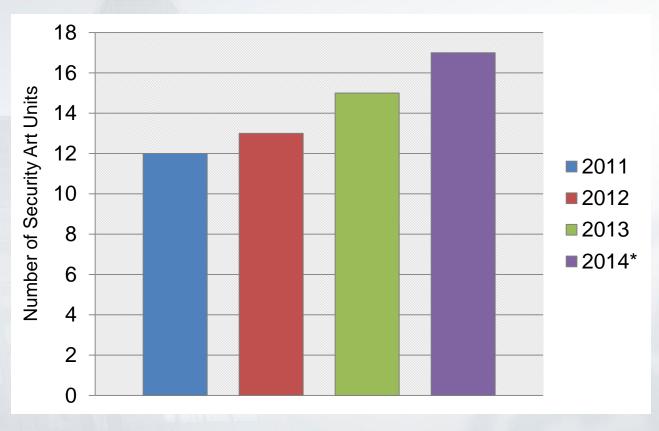


### Information Security and Cryptography





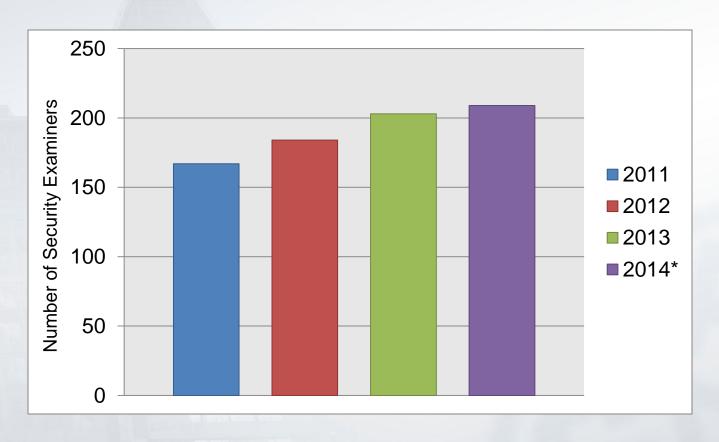
## Our Workforce - Information Security and Cryptography Art Units



\*As of October 20, 2014



## Our Workforce - Information Security and Cryptography Patent Examiners

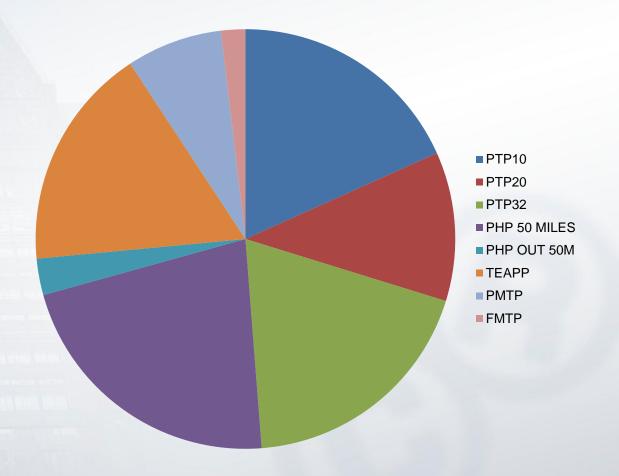


\*As of October 20, 2014



### Teleworking in TC 2400

PROGRAMS	EXAMINERS and SPEs
PTP10	156
PTP20	98
PTP32	162
PHP 50 MILES	187
PHP OUT 50M	24
TEAPP	147
PMTP	63
FMTP	16
TOTAL	853





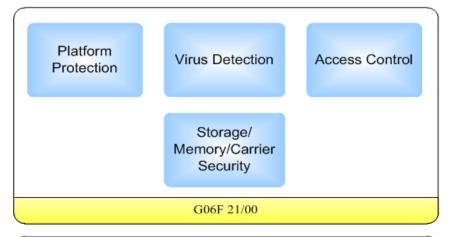
## The Technology: Information Security and Cryptography

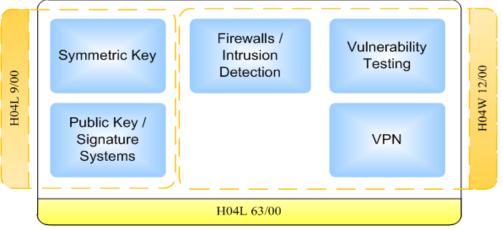
- Protection of system hardware, software, or data from maliciously causing destruction, unauthorized modification, or unauthorized disclosure.
- Subject matter relating to security policies, access control, monitoring, scanning data, countermeasures, usage control, data protection and user protection, e.g. privacy.
- Equipment and processes which (a) conceal or obscure intelligible information by transforming such information so as to make the information unintelligible to a casual or unauthorized recipient, or (b) extract intelligible information from such a concealed representation, including breaking of unknown codes and messages.



## The Technology: Cooperative Patent Classification (CPC)

### Information Security - Cryptography

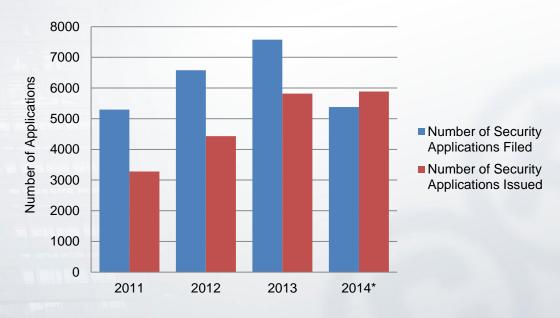






## Information Security and Cryptography Applications - Filed vs. Issued

	2011	2012	2013	2014*
Number of Security Applications Filed	5297	6582	7577	5378
Number of Security Applications Issued	3277	4433	5818	5885



<sup>\*</sup>Filing numbers for 2014 reflects partial data



## Filing - Top 15 Assignees Information Security and Cryptography Applications

20	2011		12	20	13	20	)14*
No. Apps	Assignee	No. Apps	Assignee	No. Apps	Assignee	No. Apps	Assignee
210	IBM	297	IBM	373	IBM	173	IBM
199	Microsoft	214	Google	153	Intel	103	Symantec
99	Google	137	Microsoft	152	Google	71	Google
98	Symantec	125	EMC	145	Amazon	67	Microsoft
86	McAfee	123	Intel	120	Symantec	64	Samsung
68	EMC	91	Symantec	114	EMC	60	Amazon
63	Apple	90	Samsung	111	Microsoft	50	Bank of America
60	Amazon	87	Amazon	91	Samsung	46	Qualcomm
60	ETRI	81	Toshiba	83	Qualcomm	45	Tencent
57	Samsung	78	Blackberry	76	Toshiba	39	Toshiba
54	Toshiba	50	Cisco	66	Cisco	34	EMC
53	Sony	49	HP	66	HP	33	Huawei
51	HP	49	ETRI	48	Fujitsu	32	Sony
49	Cisco	47	Sony	47	NEC	31	Intuit
46	RIM	46	Broadcom	46	Tencent	31	Intel

<sup>\*</sup>Filing numbers for 2014 reflects partial data



### Filing - Top 15 Countries

## Information Security and Cryptography Applications (by Country of Assignee)

	2011		2012		2013		2014*
No. Apps	Assignee						
2607	U.S.	3210	U.S.	3697	U.S.	1970	U.S.
415	Japan	413	Japan	501	Japan	277	Japan
189	Korea	229	Korea	243	Korea	161	Korea
132	France	166	China	199	China	139	China
119	China	135	France	125	Germany	87	Germany
106	Canada	133	Canada	108	France	51	Taiwan
93	Germany	127	Germany	104	Taiwan	51	Canada
81	Finland	76	Taiwan	94	Canada	46	France
81	Taiwan	74	United Kingdom	65	Israel	40	Finland
67	Sweden	56	Finland	57	United Kingdom	36	Netherlands
52	Netherlands	49	Sweden	57	Sweden	34	United Kingdom
42	United Kingdom	35	Israel	50	Finland	31	Israel
33	Israel	30	Netherlands	34	Russian Federation	30	Russian Federation
26	Switzerland	26	Russian Federation	31	Netherlands	21	Sweden
24	Russian Federation	23	Switzerland	31	Cayman Islands	18	Switzerland

<sup>\*</sup>Filing numbers for 2014 reflects partial data



### Filing - Top 15 U.S. States

Information Security and Cryptography Applications (by U.S. state of Assignee)

20	2011		12	20	13	20	14*
No. Apps	Assignee						
987	CA	1278	CA	1531	CA	816	CA
290	NY	392	NY	483	NY	243	NY
278	WA	214	WA	206	TX	108	TX
144	MA	193	MA	187	MA	90	WA
137	TX	169	TX	171	NV	75	MA
92	NJ	110	NV	164	WA	72	NC
80	NV	108	NJ	116	GA	72	GA
79	IL	98	IL	107	NJ	64	NV
72	NC	74	DE	100	FL	64	NJ
58	DE	69	NC	97	IL	57	IL
55	GA	68	VA	71	VA	40	FL
53	VA	66	GA	57	NC	31	PA
31	PA	50	FL	49	DE	25	VA
28	СО	38	СО	37	PA	22	MD
27	FL	37	MD	33	KS	21	KS

<sup>\*</sup>Filing numbers for 2014 reflects partial data



### Pendency Metrics – FY 2014 Information Security and Cryptography Applications

Security Patent Applications	Pendency
First Action Pendency (Average number of months between filing date and first action)	16.14 months
Total Action Pendency (Average number of months between filing date and issue or abandonment)	29.04 months

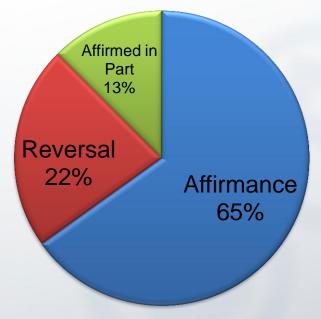
Security Patent Applications	Percentage of Actions within 4 months
Amendments	93.4%
RCE	50.1%
Patent Trial and Appeal Board (PTAB)	99.0%



## Appeal Metrics Information Security and Cryptography Applications

Security Patent Applications	2014
Appeal Briefs Filed	243
Examiner's Answers	296
Abandonment after Board Decision	228
Allowance after Board Decision	105
Reopened after Board Decision	8

### **Board Decisions**



### Quality Metrics: Quality Index Report (QIR)

- Quality Index Report (QIR) is a measure of the degree to which actions in the prosecution of all patent applications reveal trends indicative of quality concerns.
- This index is based on data currently available through the USPTO's Patent Application Locating and Monitoring (PALM) internal tracking system.
- This index is calculated by statistical analysis of occurrences of certain types of events as recorded in PALM.

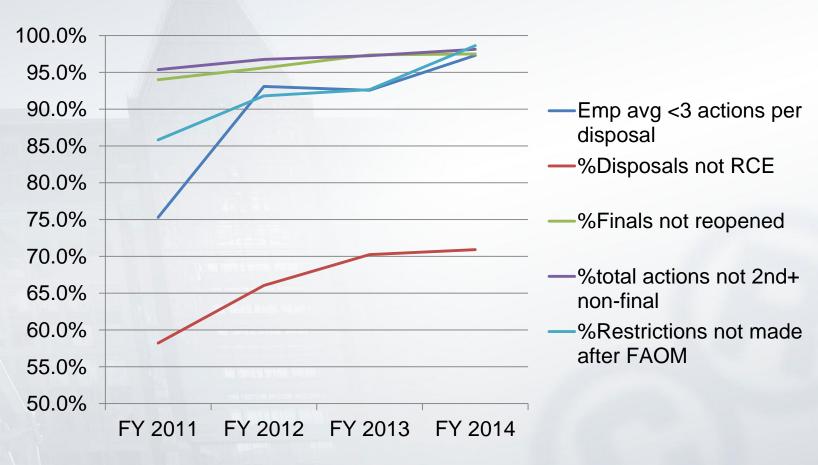


### Quality Metrics: QIR Factors

Quality Index Report (QIR) Factors				
Actions Per Disposal	% employees averaging less than 3 actions per disposal			
RCEs of Total Disposals	% disposals that are not RCEs			
Reopenings After Final	% final actions not reopened			
Non-FAOM Non-Final Actions	% non-final actions that are not second or subsequent non-final actions			
Restrictions After First Action	% total restrictions not made on second or subsequent action			



## Quality Metrics: Quality Index Report Information Security and Cryptography Examinations





### Patent Application Initiatives

### **Patent Application Initiatives**



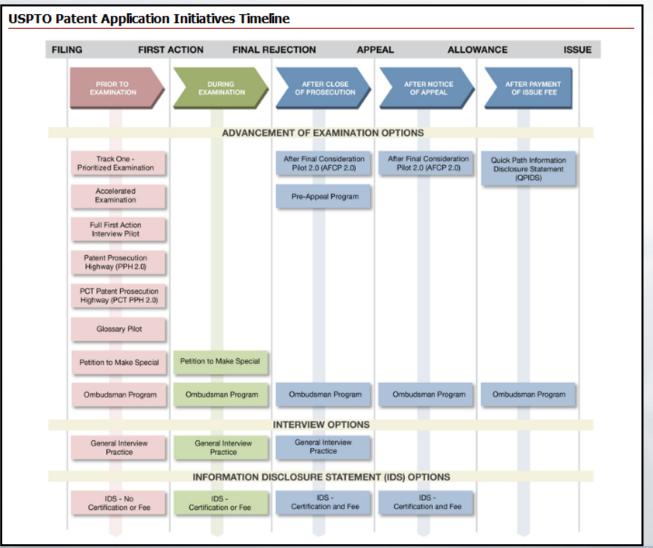
http://www.uspto.gov/patents/init\_ events/patapp-initiatives-timeline.jsp



The Centralized Patent Application Initiative website is a single online location highlighting the advantages of various patent programs available to applicants during specific stages of prosecution.

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## Patent Application Initiatives (PAI) Website





### Navigating the PAI Website

PATENTS | TRADEMARKS | IP LAW & POLICY | PRODUCTS & SERVICES | INVENTORS | NEWS & NOTICES | FAQs | KIDS | ABOUT US

Home Page » PATENTS » Initiatives & Events

### **USPTO Patent Application Initiatives - Prior to Examination**

#### Prior To Examination

View the Patent Application Initiatives Timeline

### During Examination »

	Track One (Prioritized Examination)	Accelerated Examination	Full First Action Interview Pilot	Patent Prosecution Highway (PPH 2.0)	PCT Patent Prosecution Highway (PCT PPH 2.0)	Glossary Pilot	Ombudsman Program
Description	The goal is to provide a final disposition within twelve months, on average, of prioritized status being granted.  Learn about Track One statistics.	Accelerated examination provides applicant the opportunity to have final disposition of an application in 12 months. Learn about Accelerated Examination statistics	Under this Program, an applicant is entitled to a first action interview, upon request, prior to the first Office action on the merits.	An applicant receiving a ruling from the Office of First Filing (OFF) that at least one claim in an application filed in the OFF is patentable may request that the Office of Second Filing (OSF).  Learn about PPH Statistics	European Patent Office (EPO) or the USPTO may request that the other office fast track the examination of corresponding claims in corresponding applications.	Focus on enhancing claim clarity in the specification of software-related applications through the use of glossaries.	The Patents Ombudsman Program enhances the USPTO's ability to assist applicants or their representatives with issues that arise during patent application prosecution.
Program Start Date	09/2011 (AIA)	08/2006	10/2009	2006	01/2010	06/02/2014	04/2010
Currently Active (accepting applications)	Yes	Yes	Yes, extended beyond 11/16/12	Yes	Yes	Yes (as of 06/02/14)	Yes
Petition / Request	Request	Petition	Request	Petition	Request	Petition	Request

if claims are in condition for allowance no interview is required

<sup>\*\*</sup> if extension of time is filed, application is out of Track One

<sup>\*\*\*</sup> no fee if statement of claimed subject matter is directed to environmental quality, energy, or countering terrorism



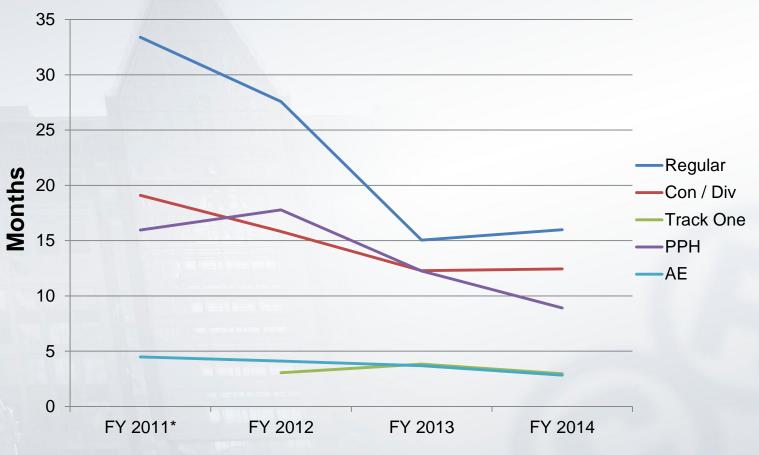
### Patent Application Initiatives

Information Security and Cryptography Applications

	Track One			osecution way	Accelerated Exam	
	Granted	Denied	Granted	Denied	Granted	Denied
FY2014	286	0	27	8	6	0
FY2013	210	0	33	2	16	2
FY2012	164	0	25	3	19	4
FY2011	N/A	N/A	23	0	21	2



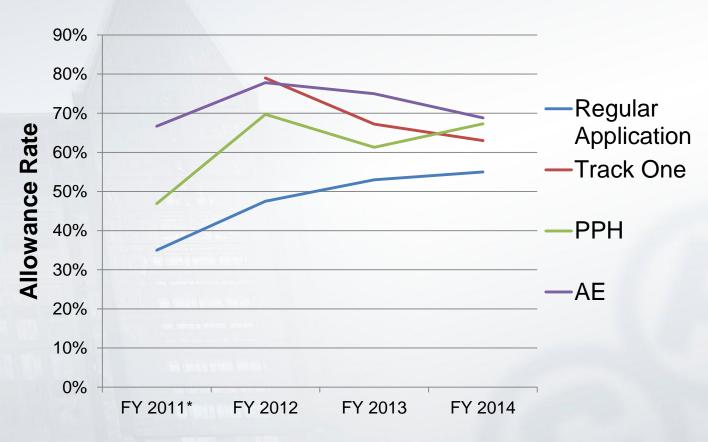
## Patent Application Initiatives: Pendency to First Office Action Information Security and Cryptography Applications



\*no data for Track One requests for FY 2011



### Patent Application Initiatives: Allowance Rate Information Security and Cryptography Applications



\*no data for Track One requests for FY 2011



# Patent Application Initiatives: Quick Path Information Disclosure Statement (QPIDS)

- Features of the QPIDS:
  - A QPIDS submission may only be filed after payment of the issue fee and before issuance of the patent.
  - The following items are included in a QPIDS submission:
    - A QPIDS transmittal form, PTO/SB/09.
    - An IDS, including a timeliness statement as set forth in 37CFR 1.97(e)
       and the IDS fee set forth in 37 CFR 1.17(p).
    - A Web-Based ePetition to withdraw from issue under 37 CFR
       1.313(c)(2), and the petition fee set forth in 37 CFR
       1.17(h).
    - A RCE and the RCE fee under 37 CFR 1.17(e).
    - An authorization to charge all fees associated with the QPIDS to a USPTO deposit account.



# Patent Application Initiatives: Quick Path Information Disclosure Statement (QPIDS)

- Features of the QPIDS (cont.):
  - If the examiner determines that the QPIDS
     necessitated reopening prosecution, the Office will
     issue a form PTO-2300, titled "Notification of
     Reopening of Prosecution Due to Consideration of An
     Information Disclosure Statement Filed After Mailing of
     A Notice of Allowance," and the RCE will be
     processed.
  - Otherwise, the Office will issue a corrected notice of allowability (PTO-37), which will identify the IDS and be accompanied by a copy of the submitted IDS listing as considered by the examiner.



## Patent Application Initiatives: QPIDS Metrics

Technology Center 2400	FY 12	FY 13	FY 14	Total
Total Number of QPIDS Filed and Completed Process	31	97	231	359
• # Corrected NOAs mailed	29	92	202	323
•Total # of RCEs processed	2	5	29	36

Security Workgroups 2430 and 2490	FY 12	FY 13	FY 14	Total
Total Number of QPIDS Filed and Completed Process	11	37	38	86
• # Corrected NOAs mailed	10	34	33	77
•Total # of RCEs processed	1	3	5	9

FY 2012 - FY 2014



## Patent Application Initiatives: After Final Consideration Pilot (AFCP) 2.0 Features

- Features of the AFCP 2.0:
  - Applicants must request entry into AFCP 2.0
  - Applicants must submit an amendment to at least one independent claim that does not broaden the scope of the independent claim.
  - If the application is not allowed, the examiner must request an interview with the applicant in order to claim non-production time.



### Patent Application Initiatives: AFCP 2.0





## Patent Application Initiatives: AFCP 2.0 vs Non-AFCP 2.0 Applications

Percentage of Subsequent Appeal Briefs in AFCP 2.0 and Non-AFCP 2.0 Applications - TC 2400				
Application Type	Number of Cases	% of Total Cases		
Non-AFCP 2.0 After-final Applications With Subsequent Appeal Brief	830	6.2%		
AFCP 2.0 Applications with Subsequent Appeal Brief	106	1.7%		

(May 19, 2013\* – October 20, 2014)

\*Start Date of AFCP 2.0



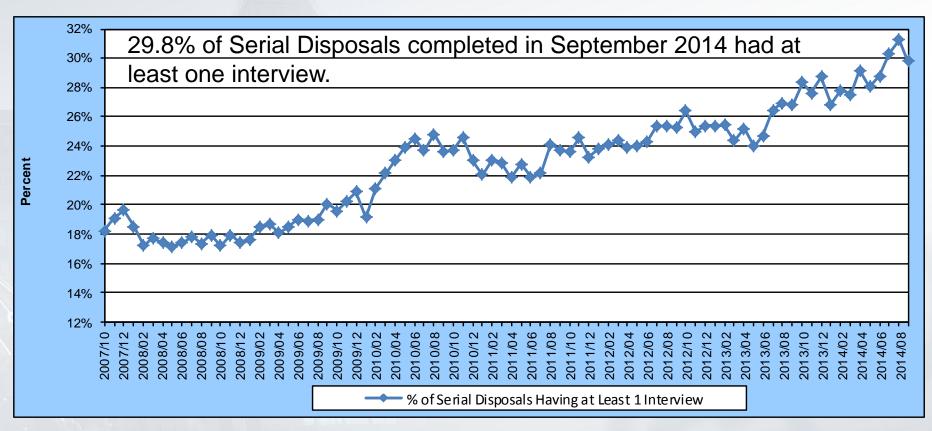
## Patent Application Initiatives: AFCP 2.0 External Survey Results

### **Preliminary External Survey Results:**

- When asked if the AFCP 2.0 reduced the likelihood an RCE will be filed in the application, 62% responded affirmatively.
- 75% of respondents felt that the AFCP 2.0 is either somewhat or very effective in advancing prosecution.
- Respondents were 3 times more likely to recommend continuation of the AFCP 2.0 than otherwise.
- Consistency of AFCP 2.0 implementation and examiner familiarity with the AFCP 2.0 were two concerns of respondents.
  - Additional training has been provided to examiners.
  - Examiner/SPE access to Patent Application Initiatives (PAI).



## Percent of Serial Disposals Having at Least One Interview by Month (Corps. FY 2008 – FY 2014)





### **Questions and Comments?**

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