Intellectual Property (IP) Services
STEM Roundtable Overview

Mike Goertzen, Sr. Program Manager
March 19, 2018
IP Services
Topics

- My Background
- Serco Overview
- The Future of Patents
- Skills & Capabilities
- Questions
IP Services
My Story

- Born & Raised in Newport, WA
- BA in Natural Science, Bethel College (KS)
  - Minor in Mathematics
- Taught HS Chemistry, Physics, & Mathematics 14 years (KS, IN)
- Graduate Coursework at ND, IU, Pitt State
- Moved to Harrisonburg in 2006
  - The Generalist vs. Specialist Challenge
- Patent Classifier with Serco
  - New contract
  - Opportunity
- MBA in Innovation, James Madison University
- Program Manager since 2014
IP Services
Introduction to Serco, Inc

- Subsidiary of Serco Group, London
- Leading provider of professional, technology, and managed services
- Headquartered in Reston, VA
  - More than 100 locations
  - 45 states and 5 Canadian provinces
- $1.0B company with ~8,000 skilled and dedicated professionals
- Ranked by Forbes
  - #1 Business Services Employer – East Coast
  - #3 Business Services Employer – US
  - Top 40 Federal Prime Contractors
  - #39 of America’s Best Employers
IP Services
Serco, Inc Overview

- United States Patent & Trademark Office Full Classification Services Contract (USPTO FCS)
  - Provide classification symbols to characterize content for newly submitted patent applications
  - Provides public and private search, USPTO routing information, drives production metrics, and provides examination research basis for USPTO Examiners
  - Analyze technical documents and assign appropriate catalog codes from over 275,000 possible choices.
  - Assist with global alignment

- Commercial Patent Search Services (CPS)
  - Provide research information to IP Attorneys based on technical documentation.
  - Prosecution Search
  - Litigation Search
IP Services
Future of Patents & Outsourcing

- From Forbes*
  - IP now comprises over 35% of total US economy
  - IP & other intangibles represent 80% of US public company market value
  - IP now drives biggest new developments in science, business, arts, and the professions
  - IP is the engine of business and professional growth
  - IP can enhance your career if you learn the basics

- Significant Global Growth

- Stable & Rewarding Profession – often not considered

- Government Budgets
  - Public Scrutiny and Push for Smaller Govt
  - Aging Population (Baby Boomers)

* Phelps, Marshall; 5 Ways Intellectual Property Will Be Critical to Your Career; Forbes; June 30, 2016
IP Services
General Recommendations & Insights

- Technical Rigor, of course
- Cooperation / Teamwork
- Effective Communication – Especially Written
- Major Project at University Level
- The “Mop Up” and Setting Expectations
  - Inspiration AND
  - Reality
  - Get the right mix
- Versatility
  ✓ Generalist vs. Specialist Challenge
IP Services
Questions & Discussion
IP Services
Backup Slides
1. A process for forming a printed electronic component or thermally or electrically conductive pattern on a substrate comprising the steps of: applying to a substrate by printing in the form of a thermally or electrically conductive pattern or electronic component, an ink composition including (a) nano graphene platelets wherein each of the platelets comprises a graphene sheet or multiple graphene sheets that are un-oxidized or pristine graphene and the platelets have a thickness no greater than 100 nm, and (b) a liquid medium in which said nano graphene platelets are dispersed, wherein said nano graphene platelets occupy a proportion of at least 0.001% by volume based on the total ink volume, to the surface of a substrate.

1. A norbornane-2-spiro-.alpha.-cycloalkanone-.alpha.'-spiro-2"-norbornane- ne-5,5",6,6"-tetracarboxylic dianhydride represented by the following general formula (1): ##STR00030## wherein, in the formula (1), R.sup.1s, R.sup.2, and R.sup.3 each independently represent one selected from the group consisting of a hydrogen atom, alkyl groups having 1 to 10 carbon atoms, and a fluorine atom, and n represents an integer of 0 to 12.

2. The method of claim 1 further comprising: during the ongoing communication session between the first and second mobile devices, receiving by the first mobile device one of a) a SMS or text message, b) a TCP/IP message, c) a UDP message, and d) a cellular network control message, from the second mobile device that contains location information of the second mobile device.
### C07D

**HETEROCYCLIC COMPOUNDS**

Heterocyclic compounds having only nitrogen as ring hetero atom

<table>
<thead>
<tr>
<th>C07D 201/00</th>
<th>Preparation, separation, purification or stabilisation of unsubstituted lactams</th>
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</thead>
<tbody>
<tr>
<td>C07D 201/02</td>
<td>Preparation of lactams</td>
</tr>
<tr>
<td>C07D 201/04</td>
<td>from or via oximes by Beckmann rearrangement</td>
</tr>
<tr>
<td>C07D 201/06</td>
<td>from ketones by simultaneous oxime formation and rearrangement</td>
</tr>
<tr>
<td>C07D 201/08</td>
<td>from carboxylic acids or derivatives thereof, e.g. hydroxycarboxylic acids, lactones, nitriles</td>
</tr>
<tr>
<td>C07D 201/10</td>
<td>from cycloaliphatic compounds by simultaneous nitrosylation and rearrangement</td>
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<tr>
<td>C07D 201/12</td>
<td>by depolymerising polyamides</td>
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<tr>
<td>C07D 201/14</td>
<td>Preparation of salts or adducts of lactams</td>
</tr>
<tr>
<td>C07D 201/16</td>
<td>Separation or purification (separation of inorganic salts C01)</td>
</tr>
<tr>
<td>C07D 201/18</td>
<td>Stabilisation</td>
</tr>
</tbody>
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Heterocyclic compounds having only nitrogen as ring hetero atom

<table>
<thead>
<tr>
<th>C07D 203/00</th>
<th>Heterocyclic compounds containing three-membered rings with one nitrogen atom as the only ring hetero atom</th>
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<tbody>
<tr>
<td>C07D 203/02</td>
<td>Preparation by ring-closure</td>
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<tr>
<td>C07D 203/04</td>
<td>not condensed with other rings</td>
</tr>
<tr>
<td>C07D 203/06</td>
<td>having no double bonds between ring members or between ring members and non-ring members</td>
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<tr>
<td>C07D 203/08</td>
<td>with only hydrogen atoms, hydrocarbon or substituted hydrocarbon radicals, directly attached to the ring nitrogen atom</td>
</tr>
<tr>
<td>C07D 203/10</td>
<td>Radicals substituted by singly bound oxygen atoms</td>
</tr>
<tr>
<td>C07D 203/12</td>
<td>Radicals substituted by nitrogen atoms not forming part of a nitro radical</td>
</tr>
<tr>
<td>C07D 203/14</td>
<td>with carbocyclic rings directly attached to the ring nitrogen atom</td>
</tr>
<tr>
<td>C07D 203/16</td>
<td>with acylated ring nitrogen atoms</td>
</tr>
<tr>
<td>C07D 203/18</td>
<td>by carboxylic acids, or by sulfur or nitrogen analogues thereof</td>
</tr>
<tr>
<td>C07D 203/20</td>
<td>by carboxylic acid, or by sulfur or nitrogen analogues thereof, e.g. carbamates</td>
</tr>
</tbody>
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