Leveraging Business Architecture for Business Requirements Management

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Business Architecture Is Not Optional for Business-Outcome-Driven EA

- Successfully executing a business strategy depends on business architecture to help inform and guide a rigorous analysis of the business, its context and the disruption it faces.
- Business architecture is essential to strategically respond to massively disruptive business and technology change.
- Without business architecture, "EA" efforts are just "IT architecture," and will fail to demonstrate and deliver significant business value outcomes.

Gartner Oct 2014



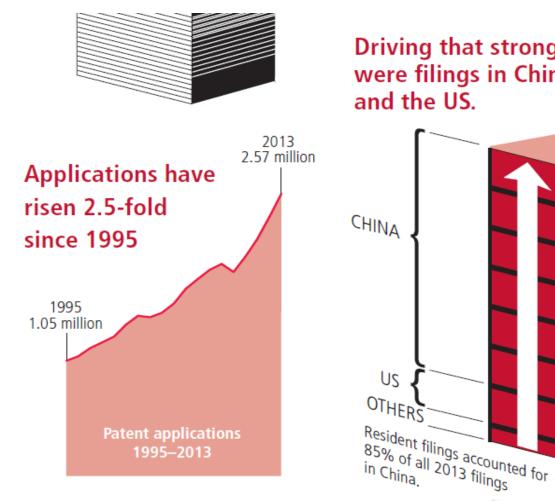
United States Patent and Trademark Office (USPTO)

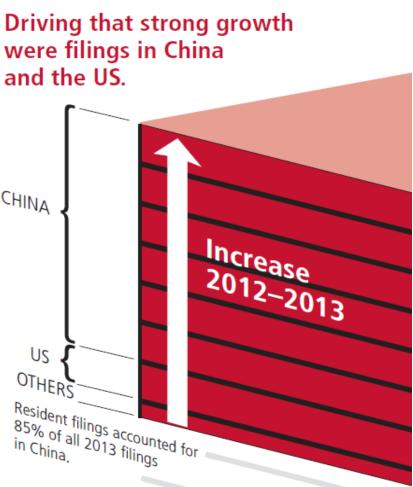
Background

- USPTO: Federal agency for granting U.S. Patents and registering Trademarks
- Vision: Leading the World in Intellectual Property Protection and Policy
- Mission: Fostering innovation, competitiveness and economic growth, domestically and abroad by delivering high quality and timely examination of patent and trademark applications, guiding domestic and international intellectual property policy, and delivering intellectual property information and education worldwide, with a highly skilled, diverse workforce.
- Trademark Office and Trademark Trial and Appeals Board (TTAB) are unique business units within the USPTO



Patent Application Growth (WIPO)

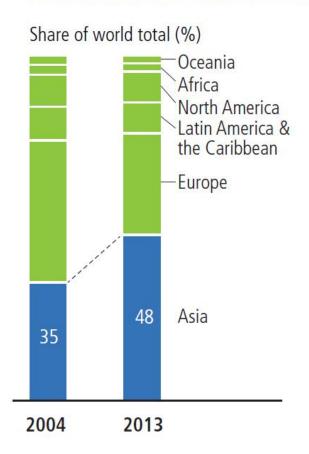


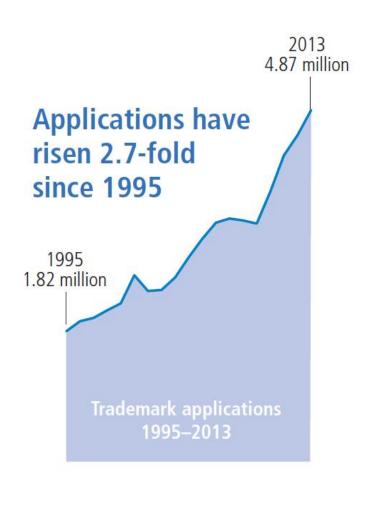




Trademark Application Growth (WIPO)

Asia has significantly increased its world share



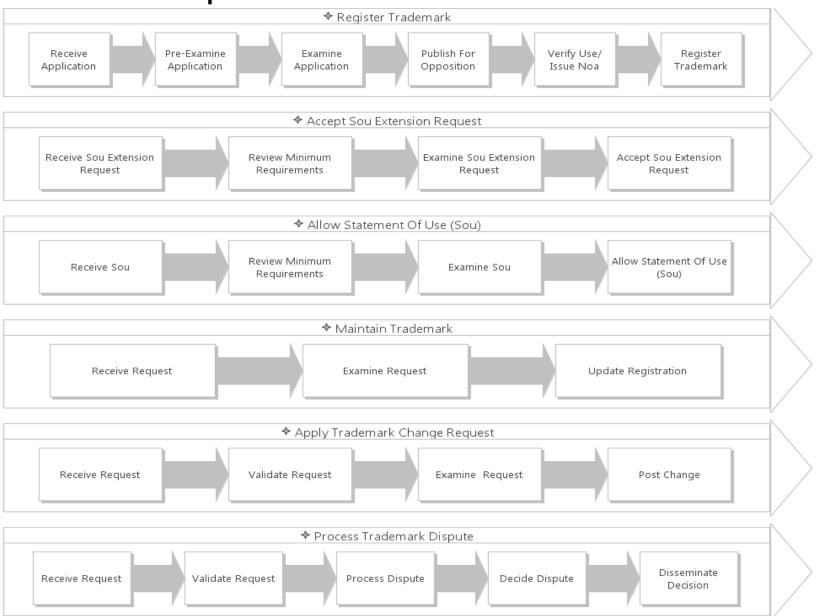




Trademark Business Architecture

- The Trademark Office and Trademark Trial and Appeals Board (TTAB) drafted a business architecture that covers the entire Trademark business
 - This work was performed by the business and the business owns the business architecture
 - The enterprise architecture team supports business architecture packaging, publication and dissemination
- The Trademarks business architecture established in 2010 includes:
 - Capability map
 - Value streams
 - Value stream / capability cross-mappings
 - Routing maps and routing map worksheets for selected value stream stages
- USPTO and the Trademark Office is using the business architecture for:
 - For business impact analysis, business planning and prioritization
 - To support a major business and IT initiative Trademark Next Generation (TMNG)
 - Provide a framework for long-term IT asset management

Sample Trademark Value Streams



Trademark Capability Map – Levels 1-2

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Trademark Next Generation

- The Trademark Next Generation (TMNG) will deliver:
- Fully electronic, separate, sustainable, end-to-end system in which technology and user services will be developed, managed and adapted in an efficient and cost effective manner that meets current and future needs of the Trademark Office and system users.
- Resulting next generation IT systems, platform and functionality will enable optimal use of Trademark data by the public and employees.
- Business architecture is central to this effort with support established at senior management level

Source:

https://www.fbo.gov/index?s=opportunity&mode=form&id=4b4877097088a8ae4bac3587e2b051cd&tab=core& cview=0

How the TM Business Architecture is utilized for TMNG

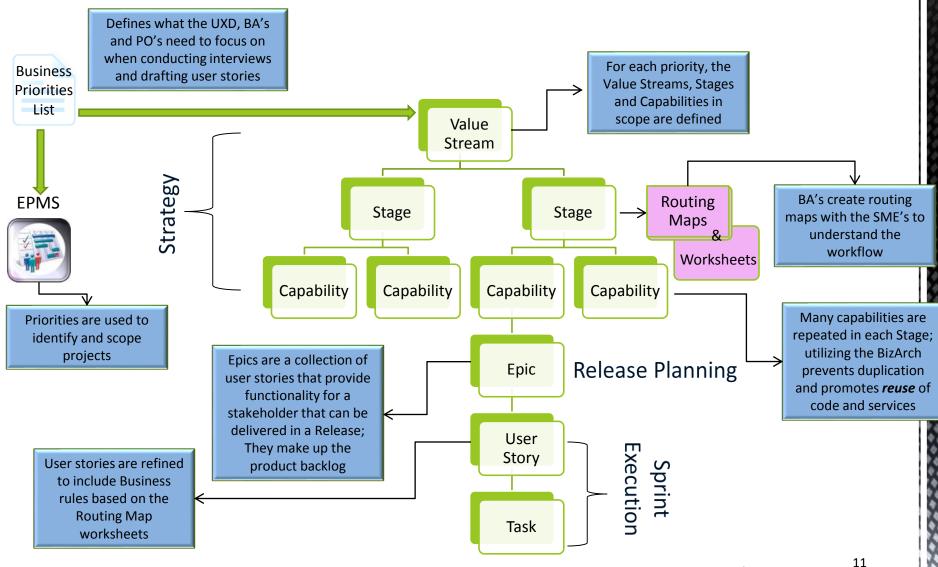
Strategic:

- The Business Architecture is a core component of the TM Business Priorities list, which is reviewed by the Office of the CIO (OCIO) and the Trademark business on a quarterly basis to determine "what comes next".
- The Priorities list is decomposed into projects, which are mapped to OCIO Programs within the TMNG Portfolio
- Value streams, stages and capabilities are referenced in planning documents such as Capital Investment Decision Papers,
 Project Charters, IT Plans, etc.

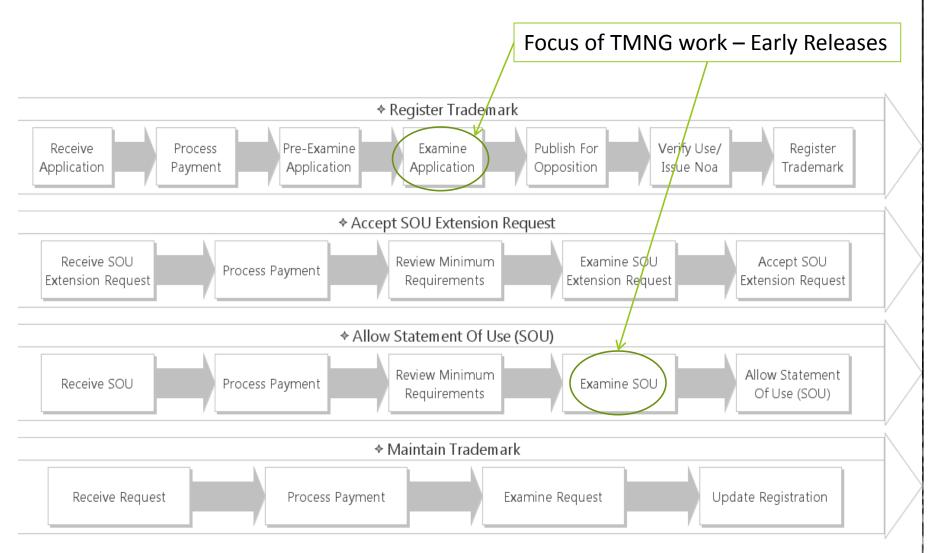
Tactical:

- The Business Architecture is used to define the scope of work for TMNG projects
- Project Managers, Scrum Masters and Product Owners decompose the Capabilities defined for their project into Release and Sprint goals
- Business Analysts and Product Owners leverage the Business Architecture to develop routing maps to define the stakeholders, triggers and events for each stage in a Value stream. This, along with Routing map worksheets, are used to define Epics and User stories
- Mapping User stories to the Business architecture hierarchy provides teams with the ability to search on specific capabilities to see what user stories already exist, what code has been developed, and to determine what can be leveraged for re-use

Utilizing the Business Architecture from an Agile Requirements Perspective

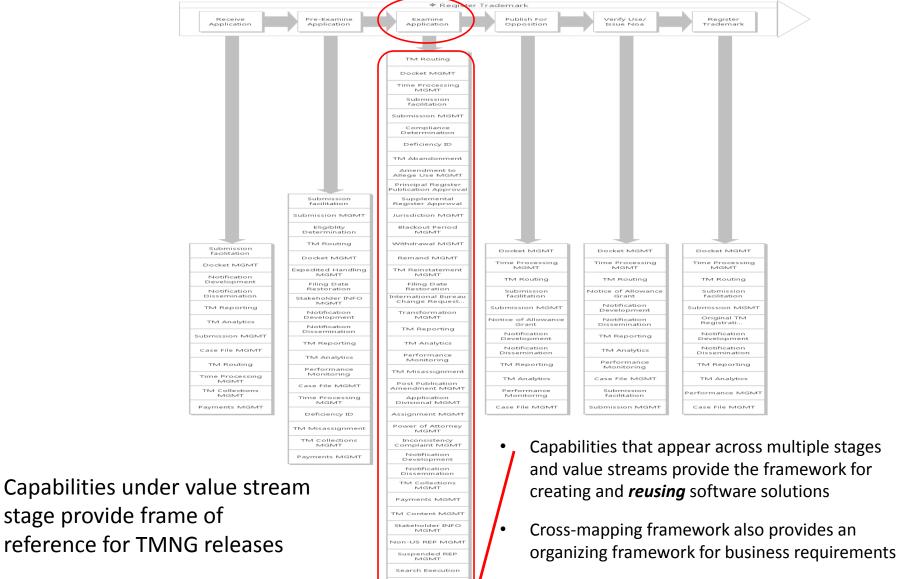


Value Stream Used For Release Planning



Value Stream / Capability Cross-mapping: A Frame of Reference for TMNG Program Roadmaps

Case File MGMT



Role of Routing Maps in TMNG and Agile

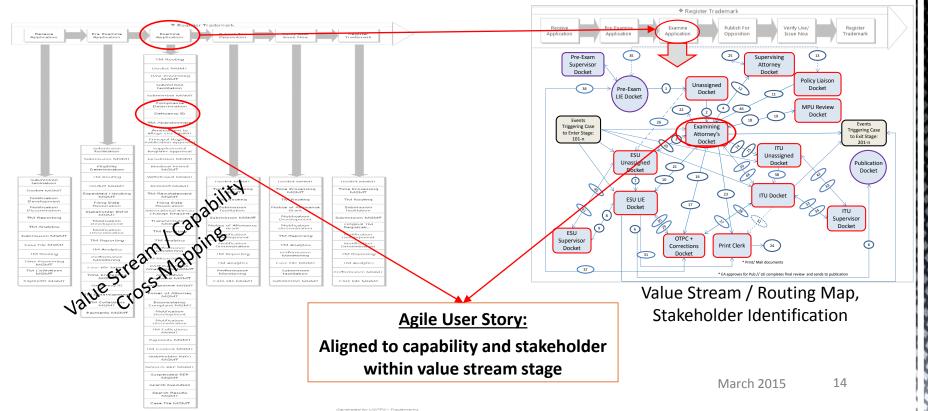
The value stage / capability / stakeholder helps frame an agile user story to ensure that each user story focuses on improving a capability, within a value focused perspective, in relation to a participating stakeholder targeted by the story.

<u>Value Stream</u> – Register Trademark

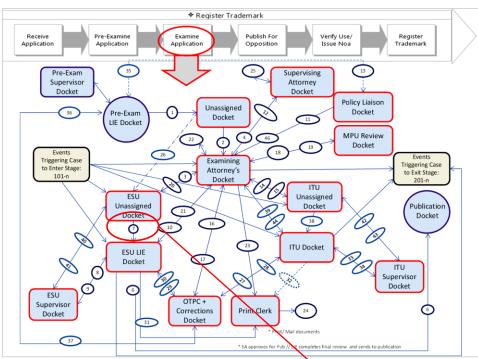
<u>Value Stream Stage</u> – Examine Application

<u>Capabilities</u> – Trademark Abandonment

<u>User Story</u>– "As an Examining Attorney, I want to abandon a case"



Using Routing Maps to Define Workflow and Frame User Stories



- The routing map worksheet (show to right)
 details the events associated with each number
 on the routing map
- Events and related work transition, state change and action to be taken is detailed in the worksheet
- Worksheet line items closely align to agile user stories and are surfaced during user working sessions as needed

- Each value stream stage decomposes into a state-based, dynamic rules based routing map
- Routing maps show all possible events involving work transfers, state change or other action to be taken

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Business, Data and Application Architecture

- The capability map is used as an input to data architecture work, specifically while designing conceptual and logical data models
- Capabilities and value streams are mapped to legacy applications as input to retirement planning
- As new capabilities are deployed, NG SW will phase out the Legacy SW
- Capabilities are being leveraged as input to a shared services approach,
 which will be used across USPTO as a whole

Closing Discussion

- Business architecture was defined by the business and is used by the TMNG program and OCIO team for:
 - Business roadmap definition
 - Planning and tracking evolution of software portfolio
 - Making sure multiple projects work against same business perspective
 - Requirements tracking, articulation and validation
 - Framework for envisioning case management
 - Input to a shared services environment

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