



# Role-Based Approach to Intellectual Asset Management in Service Organizations

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## ABSTRACT

Intellectual Assets (IA) have been the key differentiator for today's organizations. However, creating and unlocking the value of these assets has never been easy, and has been achieved by very few organizations. The identification of an organizational structure, and the roles and responsibilities for making Intellectual Asset Management (IAM) happen is a key consideration. This article presents an approach to IAM which is pragmatic, business oriented, and addresses the *defensive* and the *proactive* dimensions of IAM. We propose an organizational set of roles and responsibilities that collectively achieve the goals of an IAM strategy. While this paper draws upon experiences in the Information Technology (IT) services industry, the learning described is applicable to companies in other service industries too.

## 1 INTRODUCTION

Intellectual assets (IA) are the codified, tangible or physical representations of specific knowledge that the organization uses to conduct its business. Some examples of IA: Customer proposals, training material, methods, reference architectures, solution models, and technology prototypes. Intellectual Property (IP) refers to Intellectual Assets that have legal protection. Intellectual Asset Management (IAM) is having mechanisms in place to effectively create, protect and deploy IA in a way that maximizes benefit and minimizes risk.

This article presents an organization structure for IAM that is driven by a role-based approach. Such an approach spreads a specific functional responsibility across multiple roles [1, 5]. For example, for the sales functional responsibility, this is discharged through roles such as sales head, regional manager, and business development manager and so on. A *role definition* describes expectations and results.

## 2 STRATEGIC USE OF INTELLECTUAL ASSETS

Effective IAM models are available in academia [3], the pharmaceutical and product-based organizations [6]. However, they are largely absent in the service industry. The primary reason for this is lack of clarity on the ownership of the intellectual asset when bundled into a solution. Some strategic uses of intellectual assets in a service-based organization:

The **defensive** aspect, which ensures that the company's IA is protected from abuse by third parties, while ensuring that the company is not exposed to the risks associated with abuse of third-party IA.

The **proactive** aspect leverages IA for business benefit.

Intellectual Assets have risen in importance primarily because:

1. Client need: Meeting client requirements requires a high degree of confidence from both parties in dealing with IA of the client. On the proactive front, it is becoming important to innovate on new solutions.

2. Service Organization's needs: IA represents a major proportion of assets in service organizations. Hence, the need for risk analysis and valuation of IA becomes critical. IA is being used as a positioning tool, and as a negotiating tool [2]. The consequences of mismanaging IA are severe, and can lead to the termination of a proposed client relationship. This is more so true in the Business Process Outsourcing (BPO) industry. On the proactive front, while most innovations happen in the field, few are captured and ploughed back. An infrastructure to support such capture and reuse is required.
3. Internet era and globalization: The boundary-less world has brought new challenges to IA owners. There has been a spate of infringement issues, and increased patent filings [3]. Thus, it is necessary to have strong IAM measures in place.

## 3 DESIGN CRITERIA / BUSINESS DRIVERS

An organizational structure for realizing the IAM strategy must meet the following business drivers:

### 3.1 Alignment with the Organization

The IAM function should be, to the extent possible, built into existing roles within the organization.

### 3.2 Ability to Handle both Defensive and Proactive IP Management

The capabilities identified for each role should be a combination of defensive and proactive IP management.

### 3.3 High Growth Plans for the Organization

As the organization grows, the model should ensure that increasing IAM needs are met, without proportionate increase in the size of the dedicated IAM unit.

## 4 SUGGESTED PRACTICES

We consider here three approaches that meet, in varying degrees, the needs described in section 2, as well as the business drivers described in section 3:

- (i) A centralized IAM team
- (ii) A decentralized IAM team
- (iii) An integrated team

### i. A centralized, dedicated IAM team

While this is desirable from the perspective of stability and ownership, it has drawbacks, namely a cost center which may grow proportionately to the organization's growth (violating criterion 3.3), lower flexibility of staffing, and difficulty of attracting and retaining specialized staff. Xerox has such a team composition [2].

## ii. A decentralized, cross-functional IAM team

“IP Champions” identified from business units facilitate the implementation of IAM. Each business unit, along with the respective IP champion decides specific actions such as patent filing, etc. Such a structure builds awareness and commitment at the business unit level. DuPont has such a team composition [2]. However, such a team may lack sustained momentum, as nominees from business units may not necessarily feel a strong sense of ownership.

## iii. An Integrated, hybrid team

This model comprises of a dedicated core team, and a part-time extended team:

- *Sponsor*: A member of the senior management. The role sets vision and direction, and is the approving authority for investment and staffing.
- *Advisory Council*: Heads of business units, heads of business enabling functions such as education, research, Human Resources, Quality and Information Systems, and the corporate legal cell. The council sets direction and operating priorities, and is the approving authority for policy changes, monitoring progress.
- *Core team*: A small dedicated team staffed through focused recruitment or transfer from key departments. This team defines implementation and drives deployment. It is expected that the strength of the full-time core team will not increase over time.
- *Extended team*: Sourced from business units, or business-enabler functions and comprises of “IP Champions” as mentioned earlier. The extended team widens the reach of the core team into the respective business units.

IAM Teams of Dow Chemical follow a similar model and are sponsored by the respective practice unit leadership [6].

## 5 SUGGESTED APPROACH

Based on our experiences, we recommend here an approach for IAM.

**Structure:** The structure initially should comprise an “Integrated Team”. After policies and approaches are defined, the extended team is identified with IP Champions from each unit.

The next step is to identify the key roles and responsibilities in the organization, and streamline the IP-related competencies by inclusion in functional role definitions.

Here we propose the necessary competencies required for different roles (Table 1) in a service organization.

## 6 MEASURING EFFECTIVENESS

Here are some control points and mechanisms by which the effectiveness of the model can be measured.

(i) Awareness Building: This is achieved by Training, orientation during induction, and by mentoring on-the-job.

Metrics: Number of programs conducted, percentage of roles covered.

(ii) Appraisals: Serves as a checkpoint to ensure that the responsibilities related to IP and IPR are met.

Metrics: Number of customer projects influenced significantly through IP and IPR consultancy; Number of articles published; Number of IP filed and / or granted.

Table 1. Additional responsibilities towards IAM

| Role  | Relevant IP-competency (Defensive)   | Relevant IP-competency (Proactive)   |
|---|--|--|
| <b>Project Management Stream</b>            |  |  |
| Associates and Team Leaders                 | Understanding of issues involved in use of 3 <sup>rd</sup> party IPR<br>Issues such as appropriate use, legal, financial, and brand implications   | Ability to generate fresh ideas for improving quality and/or productivity  |
| Project Managers, Senior Managers           | Ability to identify potential IP risk areas<br><br>Ability to handle IP infraction issues<br><br>Awareness of IP issues in utilizing knowledge of new employees<br><br>Act as mentor and role model for junior employees on IP<br><br>Delineation of IP ownership issues between clients, Organization and employees | Knowledge of domain IPR issues<br><br>Ability to identify organizational methodologies / practices that can potentially be established as IP<br><br>Support process and infrastructure to nurture fresh ideas for business benefit<br><br>Act as mentor and role model for junior employees on leveraging IP |
| Business Unit Heads / Functional Heads      | Ability to articulate Organization IP perspective to clients<br><br>Understanding of IP issues in alliances  | Communicating need, providing sponsorship for leveraging IP<br><br>Turn technology innovations into business results<br><br>Partner with customer in formulating their IP strategy   |
| Senior Management and Corporate roles       | Detailed understanding of information disclosure norms to customer / media   | Decide IP strategic directions<br><br>Articulate IP strategy externally<br><br>Role of IP in mergers and acquisitions  |
| <b>Technical Stream</b>                     |  |  |
| Technical Architects, Technical Specialists | Awareness of norms for disclosure of findings / results to clients or public (through publications)<br><br>Ability to recognize IP issues in definition of methodologies   | Ability to bring IP perspectives to engagements<br><br>Working knowledge of patenting processes<br><br>Constant relooking at business processes from IP perspective<br><br>Ability to champion innovation and IP   |

(iii) Audits: IP assessment / audits are to be conducted, much as the quality audits. Such an exercise may be time-based or triggered by specific events (e.g. acquiring a product, merger etc.). The IP assessment framework would require the following: (i) IP procedures/checklists, (ii) A process for conduct/ closure of IP assessment.

Metrics: Number of projects / business units covered, number of non-compliance issues, number of escalated issues, number of projects cleared from IP issues.

(iv) Management Reviews: A well-instituted senior management review process will need to ensure sufficient focus to IAM related activities. Such reviews, held at least twice a year, should include the following:

- Reports from IP audits
- Impact due to changes in the external environment
- Infringement incidents

Metrics: Number of ideas selected for development / patenting by the group, number of products, services identified for licensing, sign-off on

the action items arising from IP survey, recognizing and rewarding individuals and groups contributing to the cause.

## 7 CONCLUSIONS

The proposed role-based approach identifies the relevant IP-competencies on the defensive and proactive fronts, and maps these competencies across roles in a typical service organization. In addition, these responsibilities also help in promoting innovation, and capturing its benefits.

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