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Why Enterprise Architecture Efforts Often Fall Short

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Abstract

A company (the enterprise) is comprised of people with individual and collective motivations and drivers that form how they react to situations and stimuli. This "culture" forms the underlying basis for how the enterprise works and reacts. Without both an understanding and integration of an enterprise's culture, enterprise architecture efforts (as well as any other change agent activity) may fall well short of the expected levels of success. Further, understanding and leveraging this culture can improve the implementation time and increase the achieved level of success.

This paper explores the concept of enterprise culture (the cultural domain) and how it can be understood and then used to improve the success of enterprise architecture efforts. Some recommended actions are suggested to help the enterprise identify and work with and within it's culture to achieve enhanced enterprise architecture success.

Introduction

We have the capability of creating highly innovative and detailed Enterprise Architectures that leave no technology stone unturned and no nuance of traditional business/IT alignment unaccounted for. We have powerful tools that provide detailed repositories and an unlimited variety and quantity of reports, graphs and charts. With all this technology at our disposal, why are so many Enterprise Architecture (EA) efforts falling short of their goals? A root cause of implementation shortfalls goes back to people and culture. The company culture and how to integrate the EA with that culture is a critical success factor.

These basic individual motivations are not going to be changed by company rules or even counseling sessions. They are basic, fundamental and for the most part, steadfast. On the other hand, the company culture - how a company operates and works with these basic individual motivations - can be modified. Successful companies understand individual motivations and then craft their company culture to exploit them to achieve the desired corporate goals. Failure to understand and work with individual motivations may very well inhibit change, cause initiatives to fail and generally reduce the value that an EA could bring to the company.

The cultural domain encompasses those aspects of behavior that enable/inhibit the implementation, effectiveness and maintenance of an EA. A company's culture, along with the basic underlying motivations of employees and managers, forms the basis for how and why (or why not) companies function. For example, the author's observation over many years is that employees are generally motivated by financial gain. Not much of a surprise, this is also true of managers at all levels within a company. Therefore, employees and managers should be expected to act in a way that enhances their personal financial gain or at least does not diminish it.

The cultural domain consists of two components:

- Cultural state - the framework for understanding the impact guided by cultural principles.
- Communications - the methods for communicating the cultural message to employees (and perhaps the company's customers and suppliers).

The enterprise architecture efforts must attempt to understand and exploit how the culture of the company, as individuals and groups, enables or inhibits the various aspects of its success. Exploitation of the understanding of the company's culture can be in the form of using aspects of the culture to make some management initiative work. It can also be used to determine whether to abandon or modify some initiative that, without such intervention, may be doomed to failure by the company's culture. EA governance issues, even those as outwardly simple as standards, invoke significant cultural responses which can lead to the failure to achieve the benefits they can provide.

The cultural domain in Enterprise Architecture is the combination of individual motivations and the company culture. Analysis and understanding of the cultural domain helps the EA to achieve the desired results.

Cultural Principles

Guiding principles are a set of concise statements that provide high level guidance to an organization. Conceptually like the Ten Commandments or the Bill of Rights, principles provide a framework within which detailed direction can be established and decisions made. Principles establish the basis for a set of rules and behaviors for an organization. There are principles that govern the EA process and principles that govern the implementation of the architecture. Principles for the EA process affect development, maintenance, and use of the EA. Principles for EA implementation establish the first tenets and related decision-making guidance for designing and developing information systems.

A set of cultural principles provides the foundation for establishing, understanding and applying the impact of the cultural domain in an enterprise. The set defines how individuals, teams and the company as a whole would be expected to respond in any specific circumstance. These principles would be drawn from sources such as existing management principles, mission statements, and codes of conduct.

The cultural principles provide a framework upon which the EA will develop and deploy in the company. They provide a context within which the EA will operate and, to a large extent, determine its success.

Sample Cultural Principles

- We will operate and manage in an atmosphere of trust through the making and keeping of commitments between our customers, suppliers and ourselves. We will do what we said when we said we would do it.

- We will deliver value with everything we do.

- We think and act with a sense of urgency.

- We will exploit the practice of reuse, identifying and then applying best practices to everything we do.

- We never lose sight of our strategic vision.

- We will communicate openly.

- Our primary measure of success is customer satisfaction.

- We operate as an entrepreneurial organization with minimum bureaucracy and a never-ending focus on productivity through discipline and collaboration.

- We will put the company first, ahead of business or geographic unit and department.

- We are all team players, ourselves, our customers and our suppliers, and the team is the company.

- We will embrace new tools, new processes, and - most important of all - new ways of working and thinking.

- Transforming the way people think and act and work is more important than equipping everyone with modern tools.

- We will accept risks and forgive mistakes and we will learn from our mistakes because a mistake should only be made once.
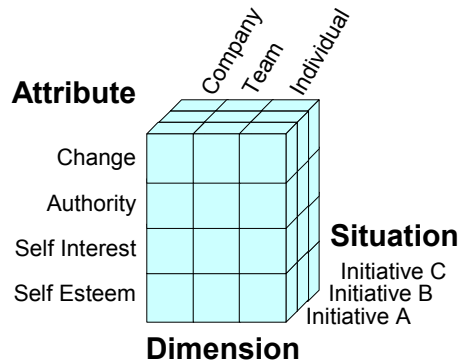

Culture State

The culture state of a company is defined by a set of attributes, derived from the cultural principles, which provide a description of the nature of what the company is and how it works from an interpersonal perspective. The cultural nature of the company has significant impact and provides a major guiding force to how things are done and interactions and commitments are handled. It explains more of why companies do what they do, beyond "because I was told to do it that way."

What is the vision of the company culture? Based on the sample cultural principles, the ideal culture is one of teaming and allegiance to commitments. In this ideal culture, the various forms of self-interest (financial, political and so forth) converge to work together to achieve the company goals. In this visionary state, change is viewed as good and welcomed as the means to accomplish both convergence of thought and advancement of action.

The culture state is represented by a framework or model, which can provide a quantitative representation of the cultural attributes that impact the implementation, effectiveness and maintenance of the Enterprise Architecture. This model graphically represents culture as a cube with its three axes being:

- Attribute - A basic cultural element (individual motivation). Attributes include self interest, power...
- Dimension – The social group to which the attribute applies. These are typically individual, team and company. Not all attributes are necessarily manifested for every dimension.
- Situation - The specific projects or initiatives under consideration.

The Culture State Model Slice

In the Culture State Model, a cube (or n-*tuple*) defining the intersection of a situation, dimension and attribute can have a state value. This state value represents how much impact a particular attribute has on the situation (initiative) for the dimension of the n-tuple. The set of n-tuples that represent all of the attribute and dimension pairs for a particular initiative is a *slice* of the cube.
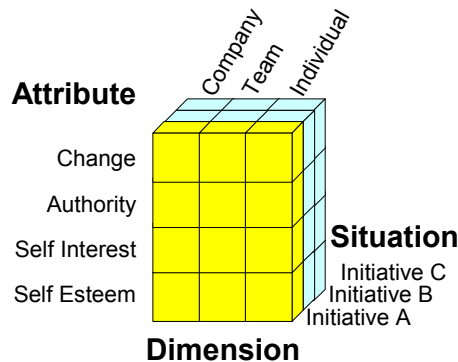
Attributes

Cultural *attributes* are the individual elements (individual motivation) that define the cultural domain. The impact of an element can be to either inhibit or enable a change, project or activity. For example, a proposed change in company benefits could reduce retirement benefits for most employees. This proposal is not consistent with the financial self-interest of employees (although it is consistent, at first pass, with the financial self-interest of the company). Thus, financial self-interest serves as an inhibitor of this project. Employees dislike the change and many of them loose some of their interest in supporting the company. Others leave seeking jobs elsewhere. In the end, the company does not benefit financially from the change.

The following attributes have been identified as typical for Culture Domain architecture. Although a larger list is theoretically possible, this list represents the most significant attributes for consideration. They are listed below in alphabetical order:

- *Authority* - Authority has to be invested in individuals, groups and the company in a non-uniform manner. However, authority becomes an inhibitor when the decisions and actions are driven by the desire to gain more authority for the one making the decision.
- *Change* - Change is absolutely necessary in order to advance Enterprise Architecture. How things are done, who does them, how measurements are taken and valued and how rewards are handled are examples of the kinds of areas that may be affected by change. Unwillingness to change is a powerful inhibitor to the advancement of Enterprise Architecture.
- *Commitment* - Commitment describes the relationship between two entities regarding a promise to perform some task. Business can be viewed as a network of commitments. How commitments by members of the enterprise are viewed and supported can be a major enabler or inhibitor of Enterprise Architecture.

- *Control* (power over others) - In the same manner as authority, control becomes an inhibitor when conservation or increase in control becomes a driving consideration in decision making and action.
- *Financial Self-Interest* - The truth of the matter is that people work because of their financial self-interest. As such, this is an important attribute and one that has very little capacity for change. Failure to give this attribute enough consideration can result in it acting as an inhibitor to an initiative. It can, however, also very easily be exploited into a powerful enabler.
- *Leadership* - Leadership style is an important cultural attribute. Leadership styles vary in both their ability to provide the necessary leadership as well as the other impacts a style may make on an organization. The effectiveness of a leadership style can also be affected by other attributes (reinforced/enabled or impacted).
- *Political Self Interest* - Another form of self-interest, political, has its roots firmly planted along with authority and control. Political self-interest often affects decisions that direct action in a company. Much like financial self-interest, this attribute can not be changed but can also become an enabler by ensuring that the various dimensions of political self-interest can be aligned with the company's best interests.
- *Self Esteem* - This is a very personal attribute that often affects how individuals perform on assignments and how they can be motivated (or demotivated) to perform some task or take on some assignment or duty. This attribute also can not be changed but is most useful in being exploited by making an intuitive appeal to the individual's self-esteem.
- *Self Preservation* - Although a quirk of the alphabet, self-preservation can certainly be considered as the last attribute. Probably the least changeable, it is firmly established (as an attribute in our business context) as almost an instinctual reaction. It is very invariant but a critical attribute to be considered.

For each slice, there are sets of attributes that comprise a "column." The column represents all of the attributes that affect that specific dimension (individual, team and company). Each of these columns is independent. In addition, for any specific attribute, there is a range of impact from complete acceptance to absolute avoidance.
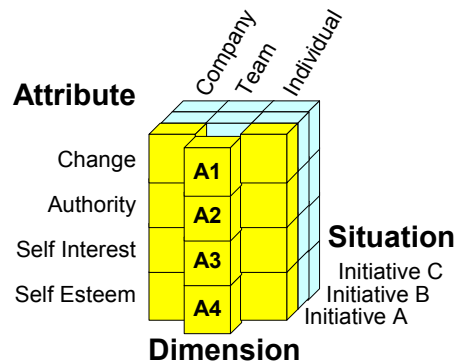
Although each attribute is independent, they do interact, allowing for tradeoffs between the various attributes. Here is a simple example to illustrate the mechanics of tradeoff concept where one attribute can be exploited to overcome another attribute's inhibiting affects. A company initiates a suggestion program where employees make cost saving suggestions that must be evaluated by managers. The evaluating managers are generally the ones that will lose budget and/or staff to implement the cost saving suggestion. The employees making suggestions that are implemented receive a share of the savings. If we consider the attribute of self interest, this suggestion would not be very popular with the evaluating managers as they must take time to make the evaluation and may lose budget and/or staff as a result. In addition, in fact, this type of program has not been very successful. However, an adjustment to the initiative is possible that can turn the self interest attribute into leverage to make the program succeed.

Assume that the authors of the initiative decide to cover the cost of the manager's effort to evaluate the suggestion. Further, managers that evaluate suggestions and then recommend their adoption are not penalized for any reduction in budget/staff the suggestion might cause to their department[1]. In fact, the initiative provides for these managers to be

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[1] In most organizations, the amount of staff and budget are not only managerial status symbols but also directly relate to the compensation for the manager. In such organizations, eductions in staff and/or budget often result in the manager's being downgraded or their department consolidated.

financially rewarded and singled out for praise for such company supportive efforts. This links self interest and financial gain with change as it increases these attributes to overcome change. Now the initiative will have a much better chance of success. In this case, the cultural attributes of financial gain and self interest are exploited to achieve a result that would not have been possible originally.

The following table provides some initial guidance in understanding the resistance factors for each attribute.

Attribute	Resistance Factors
Authority	• Always seeking additional authority • Guarding authority from loss • Unwilling to let go of authority
Change	• Maintaining the status quo • Unwilling to tolerate any changes • Will resist change of any type
Commitment	• Unwilling to make commitments • Unwilling to accept accountability for commitments • Does not hold others accountable for their commitments
Control	• Always seeking additional control • Guards control from loss • Unwilling to let go of control
Financial Self Interest	• Money is of major importance • Loss of money is unacceptable • Always seeking financial gain
Leadership	• Unwilling or unable to take leadership role • Unwilling or unable to relinquish leadership role when required • Creates dissention by leadership techniques
Political Self Interest	• Organizational politics is of major importance • Loss of political position is unacceptable • Seeks additional political position at every opportunity
Self-esteem	• Driven by self-esteem • Loss of self-esteem is unacceptable • Seeks enhancement of self-esteem at every opportunity and at the expense of others
Self-preservation	• Driven by self preservation • Willing to sacrifice others for self

Dimension

The axis of *dimension* can be subdivided into these three[2] components:

- Individual - applies only to individuals
- Team - applies to groups of individuals assembled in teams or organizations (such as a support team or an organizational department)
- Company - applies to the entire company

Dimension provides the second axis to create a slice of the overall cultural state cube. This factor allows for analysis of initiatives in three social dimensions. Most all attributes apply to all three dimensions. The following table provides detail regarding dimension/attribute pairings.

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[2] In a very large complex organization there could be many more subdivisions such as business unit, site, division, etc.

Dimension/Attribute Association			
	Dimension		
Attribute	**Individual**	**Team**	**Company**
Change	●	●	●
Authority	●	●	
Control	●	●	●
Financial Self Interest	●	●	●
Political Self Interest	●	●	●
Self-esteem	●		
Self-preservation	●	●	●

Situation

The third and final axis is that of *situation*. Situation represents specific projects or initiatives that are proposed by the Enterprise Architecture governance processes to fill gaps, including those initiatives that enhance or improve operation or other activities. The situation defines the specific slice being reviewed.

There are projects that are either intended to change the culture state or that are to change other aspects of Enterprise Architecture and also end up changing the culture state of the company. There is also a *steady state* cultural situation that describes the state of the company in its current operational mode.

Communications

The cultural principles require a means of distribution and reinforcement in order for them to perform their role of leadership and guidance to the acceptance and implementation of an Enterprise Architecture. The message must be distributed fully and continuously to both the employees of the company as well as to suppliers and customers. Suppliers must also understand and work within the company's principles. Customers have a right to know and understand how the company is going to support them and create value to their relationship with the company.

In addition to communicating the cultural principles, the communication subcomponent is responsible for communicating the entire Enterprise Architecture. Full knowledge and understanding by both company management and employees is necessary to insure success of the Enterprise Architecture. Communications plays an essential role in insuring this success.

An important aspect of communicating the Enterprise Architecture is to make the details and supportive information available to all participants. The most effective way to accomplish this is through the extensive use of an Intranet website for the company's Enterprise Architecture. Although such websites can be created and maintained "by hand" using website creation and authoring tools, these are usually very time consuming to create and maintain. A much better solution is to use an Enterprise Architecture modeling and repository tool (such as Ptech Inc. FrameWork®) that contains the entire extent of the Enterprise Architecture and its related information and then can create the Intranet website on demand. In this way not only is the Enterprise Architecture enabled with the tool, but the communications requirements are simultaneously met with little additional effort.

Although there is the tendency to view the website as the solution for communications, in order to provide the continuous reinforcement of the cultural principles a multidimensional communications program is needed. This architecture consists of personal, electronic and tangible "hardcopy" components. Although today's large companies are geographically dispersed, personal interaction between coworkers, between management leadership and staff, and with their customers and suppliers is necessary to build and maintain the interpersonal relationships necessary to enact and sustain the cultural principles. Meetings, forums and townhalls as well as video, audio and broadcast teleconferences all provide this type of interaction and should be deployed, as appropriate in the Company's culture, as part of the communications program. Hardcopy components must include both message carriers as well as thought provokers. Brochures and pamphlets can provide suitable message content. Give-a-ways such as Post It™ notes, notepads and pens with appropriate sayings are low cost and provide constant reinforcement.

Summary and Recommendations

What should an enterprise do to understand, overcome and leverage the cultural domain issues? Some actions would include:

- Identity cultural drivers
- Document the current state of culture
- Agree on a cultural vision
- Document and assess the cultural attributes and dimensions
- Create cultural principles
- Perform a cultural gap analysis
- Define transition initiatives to close the gap
- Develop and implement a project plan to complete the initiatives

Facilitated assistance is generally required by an enterprise to implement these actions. Experienced consultants can not only lead the enterprise's EA team through these steps, they can provide a view of the enterprise that is not biased by the existing culture. This outsider perspective can help the team to better understand their company culture and how to work with and leverage it for success.

The cultural domain is a critical aspect to the acceptance and deployment of Enterprise Architecture within a company. Failure to take culture into account in the development, deployment and communication of the Enterprise Architecture will most likely result in a limitation to the success the Enterprise Architecture will be able to achieve. Companies that at least plan for the cultural impacts of their Enterprise Architecture efforts will enhance the success of their efforts. Companies that proactively study, understand and then exploit their culture will achieve high levels of success with their Enterprise Architecture efforts.

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