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Five Guiding Principles of a Successful Center of Excellence

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His responsibilities have included all aspects of Windows and SQL solution development and design including analysis, GUI (and web site) design, data modeling, table, screen/form and script development, SQL development and testing, test preparation and documentation, and management and training of programming staff.

Mr. Miller has acted as Internet Applications Development Manager responsible for the design, development, QA and delivery of multiple web sites including online trading applications, warehouse process control and scheduling systems and administrative and control applications. He was also responsible for the design, development and administration of a web-based financial reporting system for a $450M organization, reporting directly to the CFO. He has also been responsible for managing and directing multiple resources in various management roles including project and team leader, lead developer and applications development director.

Introduction

At some point in time, most organizations will want to develop a Center of Excellence (CoE). The CoE will most likely have many priorities driven by multiple sponsors and these priorities will likely change over time. But the fundamental principles of the CoE group should be both clear and consistent, as these beliefs will be critical to sustaining and evolving the CoE over time.

What is a Center of Excellence?

A **center of excellence** is a (usually small) team of individuals managed or directed from a common central point independent to the functional areas that it supports within a practice or organization. This group is to be "shared" across the practice or organization and will strive to:

- Provide leadership
- Evangelize best practices
- Perform research and/or testing and present the findings (with recommendations)
- Support and/or train
- Perform other similar functions as needed in specific focus areas considered critical to the success of the overall organization or practice that it supports

This group, which may also be referred to as a "competency or capability center" is sometimes thought of as a team that leads the exposure to and the adoption of new software tools, techniques or technologies, but the CoE will also collaborate in other areas within the organization or practice.

For example, the CoE can also:

- Help to optimize the organization or practice by centralizing and making available expertise and knowledge of resources with high-demand skills and unique experiences.
- Reduce delivery times and development and maintenance costs by leveraging reusable assets and "lessons learned"
- Improve ROI through the identification and development of "practical assets"
- Identify and eliminate duplication of effort across the enterprise

Generally speaking, the primary goal of a center of excellence group is to build on the organizations past experiences - instead of "reinventing the wheel" or "falling into the same hole" with each new project. This will create value, support continuous improvement, and eliminate waste.

Five Guiding Principles of a Successful CoE

Fundamentally speaking, every Center of Excellence should have several key principles that will provide its direction and focus:

- Define and Develop
- Examine and Exploit
- Measure and Market
- Govern and Guide
- Stabilize and Support

1. Define and Develop

One major charge of a Center of Excellence group should be defining and developing standards, best practices, templates, blue prints and methodologies for all significant work efforts such as:

- Estimating level of effort
- Standard documentation
- Solution assurance
- Unit and system testing
- Environment/Version migration
- Program coding - standards and style
- General project and resource planning
- Performance tuning, etc.

These best practices should be based not only on documented and generally accepted industry standards, but also on the CoE's own practical experiences and successes.

Starting with the more significant or most often repeated, all work efforts and work products should be reviewed by the CoE team and then categorized. General questions the CoE will want to ask include:

- Have we solved for this in the past?
- How have we solved this in the past?
- What worked or didn't work?
- Is there an industry standard or success story that can be compared to and possibly leveraged in the future?

Additionally, expect your CoE to be steadily in tune with the latest industry trends, practices and approach thought streams. All of the members of the CoE should be in a state of "constant learning and reengineering".

Finally, anything introduced by the CoE should be considered a living document that will evolve, change and be developed as the industry evolves and changes and as the CoE itself evolves and (hopefully) develops further expertise.

2. Examine and Exploit

The Center of Excellence team should examine all of the practical assets that exist within or around the organization and the CoE itself. These assets might include:

- Individuals or designated teams that possess "extreme" or unique skillsets, experiences of great depth or breadth, or attitudes and aptitudes that characterize the organizations
- Relationships with individuals outside of the organization, the ability to access key individuals within the industry, specific customer or stakeholder contacts, vendor relationships and memberships, partnerships and organized groups

- Actual program code, models or modules, design patterns, algorithms (possibly expressed only in pseudo code), policies, guidelines, advice, best practice templates and documents and/or tools and utilities actually developed by the organization

Some of these assets may be obvious and easy to recognize, while some may only be revealed during actual (project) work.

These assets – intellectual or physical – must then be "ripened" or developed by the CoE to eventually be "exploited" (leveraged) within the organization and (if unique enough), possibly branded and introduced to the industry at large and thereby generating revenue directly through sales dollars or indirectly by establishing recognition.

These assets will play a key role in simplifying or improving the efforts and processes of the organization that the CoE supports and will have a direct effect on cost.

Expect the CoE to have the ability (and the authority) to continually inspect all current and past projects and deliverables, looking for sharable assets that can be beneficially exploited in one or more ways.

3. Measure and Market

The Center of Excellence team must develop the ability to measure and report on the performance of all areas and efforts of the CoE as well as specific efforts of the organization itself.

All measuring begins with an established baseline to compare performance. Again, the CoE team must immediately establish baselines for the work efforts being performed or to be performed. These baselines can be developed from internal experiences or industry-accepted publications, or both.

Measuring performance allows the CoE to set expectations for current and new work, thus providing answers to certain key questions such as:

- Are our design or resource presumptions reasonable?
- How do we know when things are "good enough" (when effort outlay exceeds any further expected return)?
- Where are our confidence areas (where we may have opportunities to increase profits or speed up delivery times)?
- What are our risk areas (where we may need to pay closer attention to avoid losing time or increasing cost)?
- How do we demonstrate to our customers that we met or exceeded the contracted requirements?

Measuring performance also allows the CoE to re-engineer weaker or deficit areas through training, soliciting expertise from subject

matter experts or other means. This is important so that the CoE can market its strengths internally (securing further funding and support) as well as externally (by driving sales through the demonstration and otherwise publication of its documented successes as industry experts).

Road Map

The center of excellence team will also establish and maintain a CoE Road Map. This can also be referred to as a historic timeline and will resolve the basic questions:

- Where did we begin (who made up the original team and who were our sponsors? What were our agenda and priorities)?
- What have been our major accomplishments and disappointments (technical or otherwise)?
- Where are we now? Who currently makes up the team and what sponsors do we have now? Do we have the same agenda and priorities?
- Where are we going based upon funding, sponsorship, industry conditions, etc.? What is our short, medium and longer-term plan?

4. Guide and Govern

The CoE should at least be aware of all significant work efforts that the organization is currently involved in or has an interest in pursuing. The level of CoE involvement with individual organizational work efforts will vary based upon many factors but specifically:

- The level of complexity of the planned work
- The level of success that the organization has had with similar work (technical or otherwise) and of course
- Resource availability

Project managers must be reminded that CoE member involvement in organizational work efforts will not actually include any development activities. Even given the most aggressive deliverables, the CoE cannot be considered for completing project work.

The involvement of the CoE needs to stay focused primarily in the areas of project acceleration and risk mitigation by providing guidance on proven approaches and (possibly) reusable components (practical assets already identified or opportunities for the development of these assets in the current work effort).

Governing

When it comes to the general approach, structure and style of work efforts, the center of excellence team should possess the ability to not only guide and suggest but also to "rule over" the work. This means that the CoE should be positioned as the governing body that will cast the deciding vote on any and all significant development decisions.

5. Stabilize and Support

Most teams will not be appropriately balanced when it comes to experience and technology skill levels. This condition results in the under or over utilization of the team and its resources and subsequent decreases in the effectiveness of the team as well as the "health and happiness" of the individual team resources.

To stabilize the team's utilization, effectiveness and happiness, team "depth charts" should be established and maintained by the Center of Excellence detailing the team's technology experience and skill levels. Depth charts will identify strengths and weakness as well as risks and opportunities in relation to current and developing market trends and the anticipated needs of the organization of the team and its individual resources.

Well-maintained depth charts should be considered as input to recruiting strategies, individual resource career growth as well as project planning and staffing requests. Along with CoE road maps, depth charts should also be used to ensure that the team is positioned properly based upon the anticipated market trends and organizational work needs.

Support

To maintain an acceptable level of support across all of the organization's work efforts, the Center of Excellence group will need to identify subject matter experts (SME) who can be leveraged where and when needed, based upon specific project needs.

Subject matter experts can be industry experts outside or within the organization or within the CoE itself. SMEs will support, provide services for, give advice to, and provide consulting to the organization and the CoE team as needed. In addition, SMEs will often be asked to review, improve, and approve project work; to guide others and to teach.

It is critical that the CoE team be able to identify existing subject matter experts, but also *potential* subject matter experts, specifically those that focus on technologies or skills that are new to the organization.

Identifying a SME

The following characteristics are indicators that an Individual may be a potential CoE SME:

- Possesses expertise in a specific market, category, business segment or discipline
- Willingness to share expertise with others
- Routinely catalogues knowledge and expertise for easy access by others
- Feels comfortable with (and looks forward to) opportunities to act as the "go to" expert
- Contributes to the development of new materials and presentations related to the area of their expertise

- Attends relevant conferences and networks with industry leaders
- Develops or participates in ways (such as practice-sponsored seminars, white papers, POV pieces, etc.) to share their intellectual capital
- Identifies opportunities to publicize and market their area of expertise
- Actively participates in online discussions concerning their expertise, such as reading and posting to appropriate blogs and online publications, fostering online relationships with appropriate bloggers and other online influencers, and developing and maintaining appropriate profile pages on social networking sites

Many subject matter experts (or potential subject matter experts) will most likely already exist within any organization, but may need to be acknowledged and nurtured by CoE leaders.

Summary

Approaches to implementing an organization's Center of Excellence will most likely vary based upon its needs. Some may begin as informal or self-elected bodies comprised of experienced and knowledgeable personnel from within the organization, while others as formal full-time positions.

Over time, it is certain that the CoE team will evolve, become more formalized, receive appropriate authorities – usually on the basis of noted contributions to successful projects - and receive additional funding to expand the scope of its operations. Overall, the CoE's commitment to these fundamental principles is essential.