

Virtual Teams to Support Variable Demand

PROBLEM OVERVIEW

Demand for IT services is variable for many reasons which could include seasonal demands, legislative directives, new products, business spikes, acquisitions, etc. Some of these spikes may be anticipated while many are not. IT organizations provide support and development services using teams with a fixed number of resources.

Fixed team sizes impede IT's ability to respond to variable demand. Over-staffing teams to provide excess capacity to handle spikes adds costs. Re-balancing priorities can be difficult because so many of the existing service demands are high priority with tight deadlines. The only practical solution is to develop the ability to rapidly orient and deploy resources in order to create "virtual" teams that can expand and contract around a core team size to respond to variable demand.

ANALYSIS

In order to enable the deployment of virtual teams with the ability to expand and contract in response to changing demand, the following issues have to be addressed:

Undocumented Knowledge – Technical knowledge can be obtained by hiring or contracting from vendors. In order to be a productive member of a team, a new resource must also have applications, business, and process knowledge specific to that team. Much of this knowledge is undocumented and must be provided by existing team members who are disrupted from their assignments to orient the new staff.

Informal Processes and/or Lack of Standards – The lack of formal process across teams makes it difficult to share resources in response to spikes in demand because it extends the orientation process. Learning the components of a system is also easier if it has been developed with consistent standards and structure.

Lack of Formal Performance Goals/QA Criteria – New team members must also learn the performance criteria including priorities and goals. Lack of formalized performance criteria also complicates the orientation process.

Obsolete or Unavailable Technical Skills – Many legacy applications require knowledge about technologies or languages that may be obsolete. Additionally, some finding staff with knowledge of newer technologies may also be difficult. Applications with obsolete or difficult to find technical skills also handicap a team's ability to respond to spike's in demand.

SOLUTION

CAI's success is developing and maintaining long-term relationships with our customers is heavily dependent on our ability to respond to changing client demands. As a result, we have



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created standard practices which help us to capture, document, and formalize different sources of knowledge which enhances our ability to cross-train and orient staff. These same solutions can be applied by our customers to enhance their own staffing agility and facilitate the creation of virtual teams that can respond to variable demands.

Knowledge Management

As previously mentioned, areas of knowledge required by IT teams includes business processes, organization structure, applications, tools, and processes. This information should be collected, documented, and formalized as follows:

- **Application Knowledge** – Purpose of the application, technical interfaces, schedules, common problem areas, business ownership, and design. This type of information is not included in the design specifications. If design specifications exist, they are rarely updated to accurately reflect the application functions.
- **IT Services Processes** – Formally document the processes for receiving, classifying, prioritizing, scheduling, and completing requests for IT services. This includes support requests and projects. The processes should also describe the usage of required management tools. Finally, team-specific processes should be avoided unless absolutely necessary. Commonality of processes across teams makes it easier to share resources across teams in response to spikes in demand.
- **Business Processes** – Prior to the large-scale deployment of computerized systems, most business organizations had detailed documentation to describe their business processes. Since many business processes have been automated, the business units depend on IT application documentation and do not maintain accurate business process documentation. IT teams must have access to an overview of business processes and how the systems interact in order to be effective

Formal Management Processes

Each team should have formal processes that describe how service requests are received, prioritized, logged, assigned, scheduled, and completed. While there may be some technology-specific variations in areas such as release management, the processes and management tools should be consistent across teams in order to facilitate sharing staff.

Performance Criteria

Documentation of service level goals, standard priorities, communication management, and QA/QC checklists allows team members to make decisions regarding which requests can be deferred and which ones must be addressed immediately. Formal performance criteria reduce the risk of failing to deliver on business expectations and enable the team to re-schedule activities in response to demand spikes. Support criteria include standard priorities and goals for “Time to Respond” and “Time to Resolve” based on priority. Performance criteria for scheduled activities such as enhancements or projects include formal estimates, completion dates, and QA/QC checklists.

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Technical Skills Management

Many IT professionals have skills that span technology areas. Frequently, their management team is unaware of these skills so they cannot leverage them when the need arises. Building a virtual team requires the identification and logging of all skills and skill levels. When a new request is received, the required skills should also be documented and matched to the available skills to decide how to staff the initiative.

For skills that are difficult to find such as very old or very new technologies, IT teams should proactively build the skills within the existing team through cross-training in anticipation of demand spikes. The other alternative is to maintain a pipeline of candidates who can be re-deployed from other teams, hired, or engaged from vendors. It is essential to address this issue proactively since it may take months to find these skills on the open market.

Visibility of Demand

Visibility of demand and demand spikes increases management's ability to demand changes and a more cost-effective response. Service requests should be logged and tracked by type, priority, reason, solution, and effort to facilitate trend analysis and enable management to anticipate and respond to demand changes.

SUMMARY

Proactive management is the critical success factor. Simple over-staffing is not acceptable because it is wasteful and IT budgets are shrinking. Computer Aid has implemented these solutions to increase our competitiveness, ensure customer satisfaction, and enable long-term customer relationships.