Prepared for:

NRF | **tech** 2018

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4 STEPS TO GAIN (& KEEP) CONTROL OF BUSINESS TRANSFORMATION PROGRAMS

At many enterprises, business transformation programs last years and often exceed the project management capabilities of IT departments due to their complexity and large size. Critical steps, such as estimating and change orders, become things vendors do to clients, rather than structured processes IT organizations actively lead and own.

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Too often, projects spin out of control, making a successful and cost-effective delivery extremely difficult. These situations require IT executives to confront challenging questions such as:

- How do we ensure we receive all the software and services we are paying for?
- Are we generating optimal returns on all investments?
- How do we eliminate waste in our program delivery process?

In this white paper, we reveal our proven, four step process for gaining and keeping control of your business **transformation program**. Our summaries of each of these control points will provide you with insight into the mechanics of control, the necessary resources and best practices to promote successful project outcomes and, ultimately, build stronger relationships with key IT vendors.

The four essential steps are:

- 1. Own the estimate
- 2. Manage the staffing model
- 3. Track delivery & waste
- 4. Manage scope

These interrelated elements are of equal importance to effectively maintaining control (Figure 1). Instilling them in IT organizations provides the rigor necessary to make good decisions throughout the project, boost confidence in project and vendor performance, and help ensure companies generate the most value from their project dollars.

Abiding by these four guidelines should not encourage senior IT leaders to micromanage, but details do matter, especially on critical IT projects with large budgets and major potential impacts on the business. No consultant or external resource, no matter how skilled or senior, will ever understand your business as well as you do. Fundamentally, this is the reason corporate IT leaders must exert firm control over their projects.



Figure 1: The four steps to gaining control of IT projects are interrelated and mutually reinforcing. When they are applied early and throughout project lifecycles, IT organizations will realize more value.

Step 1: Own the Estimate

In the eyes of vendors, all projects start with a scope of work and an estimate. But to transformation program executives, developing an estimate with consultants can be a daunting and sometimes confusing task. To derive estimates, consultants will likely use proprietary algorithms and models that will factor in their own unique implementation methods.

Typically, these algorithms are constructed through heuristic methods and based upon hundreds or even thousands of previous projects, providing the appearance of a precise estimate. But in reality, these estimates are best guesses based upon the collective experience of the IT supplier and only protect the vendor. The more input variables that are used to create an estimate, the broader the field the supplier can use to claim future scope changes.

So, what can organizations do to take control of the process? Put simply, they must own the estimate. It starts by fully understanding each parameter used as input into the estimating models and the sensitivity of outputs if parameters are changed. It is not necessary to understand the algorithms of the calculation, only how the inputs affect the outputs.

In general, estimating models should provide the following outputs:

- Basic activities required to complete the project and the deliverables to be produced from these activities
- Total labor hours required to complete each activity
- A division of labor by skills
- A general idea of schedule

Further, client IT groups should require vendors to share their estimating models. Vendors frequently resist such requests but even the most skeptical or reluctant vendors can be made to see the value in sharing.

With the model in hand and through direct collaborations with vendors, IT project leaders should create variations to the assumptions, especially around those parameters that are most likely to change during the project. This step improves insight into the impact of likely changes, which can be captured in sensitivity models (Figure 2). For instance, project teams can analyze whether adding a new interface or creating a new report would have more overall impact. Understanding the impact of such changes allows clients to do two important things:

- 1. Anticipate and plan for the most likely contingencies
- 2. Set a baseline for future change orders

Once the sensitivity analyses are complete, the results can be used to reasonably predict the impact of scope changes during the project without having to "rerun" the entire estimate. Gaining this sort of foresight equates to more control for IT organizations.



Sample Estimating Model Sensitivity Analysis

Figure 2. Sensitivity models allow project teams to assess the impacts of multiple incremental changes. In this example, adding a new interface had greater project impact than building a new report.

Further, developing a detailed estimate for a project or a part of a project where scope can be defined with more precision is an important step. This hypothetical scope can be used to execute sensitivity analyses, which help set expectations for overall project costs. This approach, combined with internal assessments of the range of uncertainty, can be used to generate estimates and workload projections, which are important inputs to the staffing model.

Estimating Checklist

- ☑ Understand project input parameters
- ☑ Gain access to vendors' estimating models
- ☑ Generate hypothetical scopes to establish estimating approach
- ☑ Create sensitivity analysis capabilities

Taking control of the estimating process is important because most business transformation projects with large IT components will feature hundreds, if not thousands, of scope adjustments, including both additions and subtractions. If there is a not a formalized and transparent estimating process well understood by all stakeholders, the process of managing scope adjustments will be inefficient and may be contentious. A transparent estimating process, on the other hand, is an excellent way to streamline overall project management and strengthen trust with vendors.

Step 2: Manage the Staffing Model

Managing the staffing model is critical since labor costs typically represent the bulk of costs for many IT projects and business transformation programs. At its basic level, staffing models align and match resources against the expected demand and workload as specified by estimates and work plans. Regardless of the type of contract IT organizations have in place with consultants, effectively managing a staffing model is paramount to controlling costs and accurate forecasting.

Staffing models should outline the following:

- 1. Resources, by name, who will be engaged during various time frames of the project
- 2. Roles and responsibilities assigned to all resources
- **3**. The rate structure for individual resource's billing time on the project, for the entire cycle of the contract
- 4. The expected contribution level of individual resources, by week and month, linked to project activities

Save Money with Buffers

The first check is to validate that time projections in the staffing model roughly match the estimated hours for the entire engagement as produced by the estimating model, within a 5% margin. That variation represents a buffer and should always be included, given the inevitability of scope changes over time. Keep in mind that staffing models are designed to align resources with an estimate that is clearly not perfect in the first place. Building in buffers and flex capacity up-front will save you money in the end.

Since project costs are largely driven by labor hours and rates, the total cost of labor should be carefully examined. For large projects, average hourly labor rates should generally reduce over time, as skill requirements diminish. It is not uncommon to achieve average labor rate reductions of 15% or more annually for five consecutive years (Figure 3).

Reductions can only be accomplished through building a strategic staffing and sourcing strategy with your supplier that considers adjustments in skill levels, participation percentages, and the overall mix of on-shore and off-shore resources. To ensure year-over-year cost reductions are achieved, this strategy must be periodically reviewed, with tactics adjusted and savings tracked.



Average Hourly Blended Rate (Client & Consultant)

Figure 3: For large-scale projects, annual reductions in hourly labor rates can result in significant savings.

The staffing model should also be used to fashion agreements with consultants regarding expected participation as a percentage of work required. This is an especially important consideration for fixed-price contracts, as opposed to those based on time and materials. Very rarely is the entire project workload handled solely by consultants or external service providers; a significant portion of work will be handled by client teams and resources. Agreements and project plans should fully and clearly capture expectations in this area. It's likely that consultants have factored in their own estimates, and may be counting on the client to deliver certain resources. Deviation in these areas may be cause for a change order and increased costs, which is why participation requirements should be clearly spelled out and monitored.

While participation and utilization tracking may appear to only benefit consultants, clients can use it to their advantage, particularly when parts of the project come in above time projections. In these situations, it is important to hold the consultants' feet to the fire to deliver resources at the percentage level of contribution that was agreed. In other words, consultants need to share the pain when there are overruns in certain areas.

Instilling some flexibility in the staffing model and establishing formal mechanisms for resolving issues around staffing participation is an excellent way to reduce the risk of future disputes. The basic approach is to formalize the commitment of both the client organization and the service provider to collaborate on filling resource gaps and planning for the necessary adjustments of project plans and fee structures.

Mitigate Project Risks

Staffing model discussions are a good time to think about **mitigating project risks**. For instance, both client and suppliers should take stock of the team's skill sets and knowledge base, shaping back-up plans for likely gaps or areas of concern.

Similarly, experienced talent should be identified in advance in case technical risks arise. For example, experts in international finance should be available to support implementations where the financial reporting laws or data security regulations of foreign countries must be considered. In some cases, bringing in well-practiced (and highly compensated) consultants with implementation experience can save substantial costs down the road.

Another effective talent management strategy (for both clients and vendors) is to assign inexperienced but bright young workers straight out of school to experienced, talent-laden teams. This can be an excellent approach to develop potential, while also boosting project output and performance at relatively cheap rates. Well designed and effectively managed staffing models help IT executives take control of their projects. Conversely, a poorly developed model is often the root cause of project delays. There are a few common risks and pitfalls to avoid. For example, consultants will provide named resources at one rate and then claim they promoted them during the project; contracts and project plans should stipulate how rate structures will be adjusted (or not adjusted) and the time frame for notification in case of promotions.

Another common pitfall is the tendency to build models to match estimates exactly, but such an approach is unrealistic in that it does not reflect time off (e.g., holidays, sick days) for resources or inevitable scope adjustments.

Staffing Models Must Feature:

- Probable overtime
- Staff vacations
- Identification of contingency plans to increase capacity, if necessary
- Lastly, staffing models should not be created once, and then put away, but revisited regularly and used as powerful project management tools.

Periodic Reviews Can Validate That:

- Resources are operating at the expected performance and productivity levels
- Both the client's resources and consultants are meeting participation projections
- Future demands of the project are on track or have been accounted for through appropriate change orders involving both increases and decreases
- Strategic plans for labor cost reductions will be met

Step 3. Track Delivery & Waste

Sufficiently **robust reporting** and forecasting processes are hallmarks of successful projects. The combination of metrics and reporting provide an early warning system for program productivity issues, budget problems, or other emerging threats.

Assign a Full-time Program Controller

Since most project resources are focused on delivery, it is a best practice for large programs to assign a full-time program controller to oversee tracking of all meaningful deliverables. This individual is responsible for ensuring all formal procedures are followed and that timely updates are in place for all measured components (e.g., outputs) associated with projects. In other words, controllers help audit the overall project to ensure clients receive all the deliverables they have paid for, and receive them in a timely fashion, relative to the project plan.

While this function is sometimes performed by a program management office (PMO), designating a controller reinforces the notion that it is an important role with real authority and ensures tracking and reporting are not compromised by a focus on project delivery.

Controllers may be representatives from the corporate finance group or a "loaner" accountant. Finance professionals with manufacturing or operations backgrounds – that is, individuals with a real grasp of the relationship between inputs and outputs – usually make good project controllers. Further, they should apply a highly objective approach, focusing on both highlevel budget targets and milestones, but also more detailed metrics like per-unit costs, and as comparisons of forecast vs. actual. The tracking process should be aligned with the key deliverables and main drivers of the project estimate.

Typically, they include:

- Number of process designs completed
- Development objects produced
- Conversion rates of data vs. expectations
- Test scripts executed
- Users trained
- Servers installed

Production/build/delivery plans should be in place for each of the key deliverables. Further, the plan should align to the staffing model, which enables the tracking of resource utilization versus progress against end goals.

In parallel to deliverable tracking, time-logging systems should be implemented for internal and external resources alike. Time tracking allows for accurate measurement of productivity and provides a mechanism for management to understand where specific resource gaps have not been adequately addressed.

Key dimensions of time tracking include:

- Resource level measure individual productivity
- Project team level measure capacity vs. plan
- Delivery object level measure productivity vs. plan
- Project activity level documentation to support financial capitalization

The combination of time-logging and deliverable tracking provides ample documentation to support project financial reporting. It is also useful in the resolution of supplier invoice disputes.

Track Project Waste

Waste is fundamentally different than productivity, which can be measured with traditional cost vs. estimate metrics. In the case of large programs, waste can be defined as investment made in scope that was eliminated during the program. If the proper time reporting methods and scope change reporting processes are in place, then real-time reporting of waste can be a meaningful indicator of project performance.

Both clients and suppliers should be responsible for controlling and monitoring waste. Typically, waste is generated by moving forward before initial designs or assumptions are confirmed. There are obvious times when risks must be taken to comply with overall program schedule requirements, however significant investments in deliverables should be deferred until proper confirmation of pre-requisites are completed. If suppliers have moved forward with deliverables without prior approval, then clients can legitimately argue that no compensation is due to suppliers for their efforts. Conversely, if the scope changes and the supplier has made an authorized investment of time or resources, then they are entitled to full compensation. Clients and suppliers should work together to eliminate or minimize waste, as it will help strengthen their relationship.

Establishing the processes and systems for reporting progress and productivity against expectations is the responsibility of the program controller. Providing "color commentary" regarding the variations against the plan is the responsibility of program management.

The program controller role also has the responsibility of developing financial forecasts. These forecasts should be data- driven, fact-oriented and focused on the overall achievement of plan as tracked through an established set of metrics. To provide a good proxy for expected productivity, it is important to develop metrics and status reports that are closely tied to the initial estimate. These measures, combined with the staffing model, will help produce more accurate financial forecasts.

METRICS AND CONTROLS CHECKLIST

- ☑ Choose a skilled program controller
- ☑ Establish a process for tracking deliverables
- ☑ Log project time for both internal and external resources
- Establish proper reporting and forecasting
- ✓ Track control of program waste

Step 4. Manage Scope

Like "death and taxes," scope changes are an inevitable part of all large projects. And more than any other factor, scope changes – or, more accurately, the lack of documentation of scope changes – cause IT organizations to lose control of projects. Scope changes occur when the input parameters from the estimating model vary from an established baseline. This generates a change in the work necessary to complete a project. Typically, change orders are used to specify the cost and amount of new resources and assets (e.g., additional hardware or software) required to complete the project. Client companies should keep in mind that change orders should also be used to formally communicate work reductions.

For large IT projects, change orders typically fall into five broad categories:

- Additional business processes need to be designed and configured/programmed
- New interfaces or reports are required
- New data volumes need to be loaded or new information sources need to be integrated
- Additional user groups require training
- Actual participation rates (by client or vendor resources) vary significantly from projections

The following steps have proven effective in optimizing management of the change order process. These steps are designed to ensure work is completed in the spirit of the original cost structure and in line with the productivity assumptions of original estimates.

- 1. Validate scope change requests by linking to trackable metrics or quantifiable controls. This approach gives IT organizations and their service providers direct visibility into all expected deliverables. It also allows financial forecasts to be adjusted and regenerated based on changes to parameters.
- 2. Process changes for deliverables eliminated from scope. It's easy and common for contractors to ask for a scope expansion by identifying work not included in the original scope. It is not so easy, common or financially beneficial for them to ask for a scope contraction by identifying work included in the original scope that is not necessary or was not delivered. Program leads should not be shy in requesting all deliverables, or creating their own change orders to reduce scope when some deliverables are not produced. In fact, this contingency should be spelled out in project planning documents and contracts.
- 3. Agree up-front on estimating practices. As highlighted in the first section of this paper, having insight into estimating practices at the outset of the project greatly streamlines the change order process. To be clear, contracts should specify exactly how new labor requirements and costs related to scope changes will be calculated. These practices should align to estimate sensitivity analyses conducted during the initial estimating cycle.

- 4. Agree up-front on mechanisms to measure participation. Just as importantly, clients and consultants should agree on the remediation approach when one or both parties are not in compliance with the contract (i.e., cannot produce the required resources). This is by no means an easy task, but it is well worth the investment of time to define the right approach for adjusting contracts as necessary.
- 5. Establish a robust review policy of any adjustments to scope. Approval requirements, roles and responsibilities should all be clearly defined. Consultants must recognize that the person or organization paying the bills needs to formally approve all additional work. Typically, managing the scope change approval process is the responsibility of the program controller. While the review and approval process should be clearly gated and highly structured, it does not have to be slow or inefficient, provided the previous control steps have been taken and strong communication channels exist between IT organizations and their suppliers.
- 6. Build in buffer scope. Given the inevitability of scope changes, it is a good idea to include "buffer scope" in initial estimates and statements of work. This technique results in more accurate capacity planning and reduces potential delays related to short staffing due to sudden scope increases. Further, these "place holders" reinforce the notion that all projects change and prepare teams to be flexible. And when new or unexpected deliverables or work steps arise, overall project adjustments will not be as dramatic. In the unlikely but very pleasant event that the scope never changes, the buffer scope can always be removed through the execution of a change order. Scope contractions at any point in the lifecycle may bring the project in under budget!

SCOPE CONTROL CHECKLIST

- ☑ Link scope changes to trackable metrics
- ☑ Plan to eliminate items from scope as necessary not just add items
- ☑ Agree and apply estimating practices for scope adjustments
- ☑ Gain consensus on measuring and adjusting participation
- ☑ Define clear and robust approval processes for scope changes and use them
- ☑ Build in buffers

The Bottom Line: Staying in Control

For nearly all large projects, control is not the default position and most consultants are happy to take on more control as it usually produces higher billings. Gaining control should be viewed as an active management discipline – one IT executives should embrace, cultivate and apply. IT veterans will recognize how this relatively simple, but extraordinarily powerful, four-step process has demonstrated its value many times over.

Yes, it takes sustained effort, ongoing rigor, and the ability to focus on details. But starting with a disciplined and controlled approach to project management and supplier relationships makes it easier to sustain control throughout the project lifecycle. And the benefits are realized incrementally; from the outset of projects, maintaining control in planning, staffing, tracking, and change management, pays substantial and recurring dividends.

The bottom line: program executives who appreciate methodological rigor and are not intimidated by the many moving parts and devilish details involved in typical IT projects and have what it takes to gain control of their IT projects. And in doing so, they are sure to see increased value and improved performance in the critical dimensions of **cost**, **quality**, **and time**.

About the Author:

John Belden is the Project Execution Advisory Services Practice Leader at UpperEdge. The practice is centered on risk mitigation with a focus on the assurance of operational continuity and harvesting the expected returns of large IT-enabled transformations. In a recent engagement, John's team delivered accepted plans to reduce costs by \$30M over the life of the program with expected costs of \$250M. Prior to joining UpperEdge, John was the Vice President of the Timken Company's Project ONE, a \$220M program recognized as one of the most successful deployments of SAP at a global manufacturing company.

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