



LESSONS LEARNED

CTCLINK DEPLOYMENT GROUP 6

ctcLink Project Management Office

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CTCLINK DG6 LESSONS LEARNED

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Introduction

The ctclink Project Methodology incorporates continuous improvement during and after each deployment group's move to production. The Quality Gates illustrated below allow the ctclink Project team to assess each activity based upon discussions with colleges, feedback from college and project staff, and surveys to understand where there may have been challenges within the Gates and opportunities for improvement for future Deployment Groups.

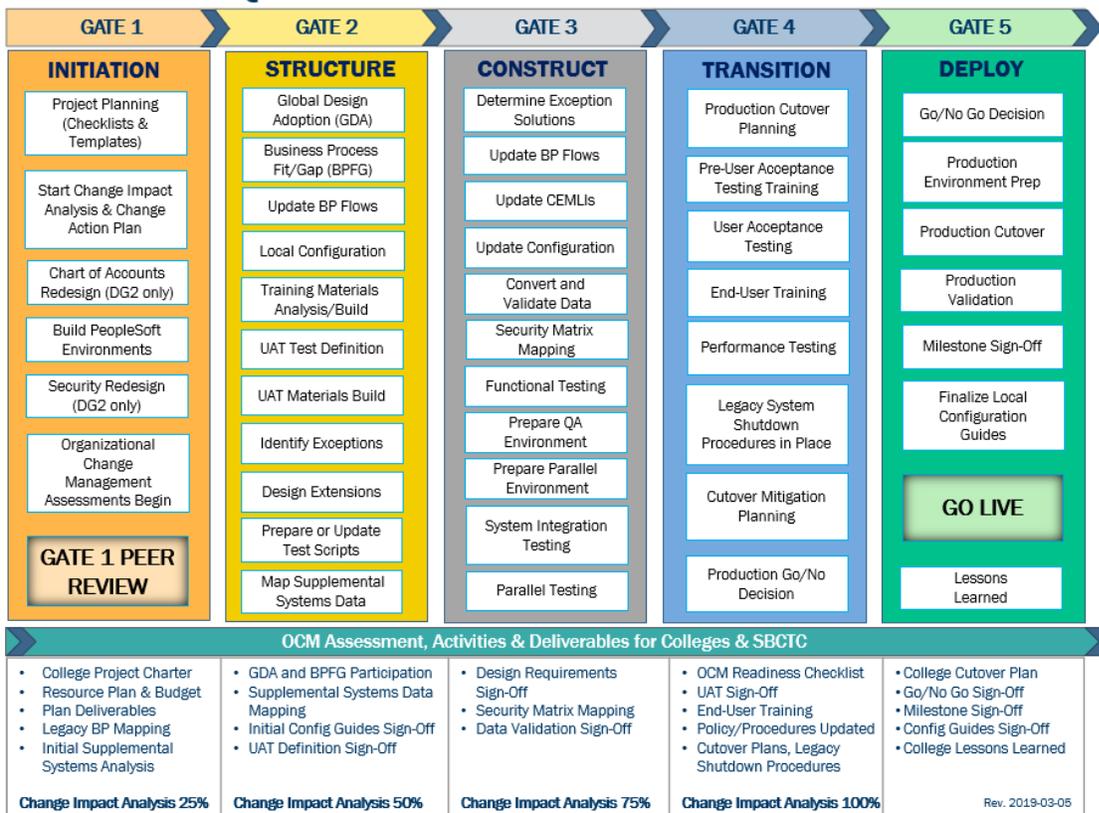
After each Deployment Group is implemented into ctclink Production, the ctclink Project Team identifies issues encountered and documents the corresponding improvement strategies to be implemented for the next deployment group. Documenting Lessons Learned is the final step in the implementation, per deployment group as well as for the entire project. This document represents the deployment group six lessons learned.

Deployment Group 6 (DG6) consisted of nine colleges: Bates Technical College, Clover Park Technical College, Columbia Basin College, Lake Washington Institute of Technology, Renton Technical College, Shoreline Community College, South Puget Sound Community College, Walla Walla Community College, and Yakima Valley College. While the DG6 colleges prepared for go live together, DG6 colleges went live in three sub-deployment groups of three colleges each. DG6-A went live on Feb. 28, 2022; DG6-B went live on April 25, 2022; and DG6-C went live on May 9, 2022.

Improvements were made to the DG6 ctclink implementation activities based on lessons learned from all previous deployment groups. In addition, real-time changes were made in response to suggestions from DG6 colleges. These real-time improvements were possible due to the close and frequent interaction between the ctclink Project Team and college project managers (PMs) and subject matter experts (SMEs).

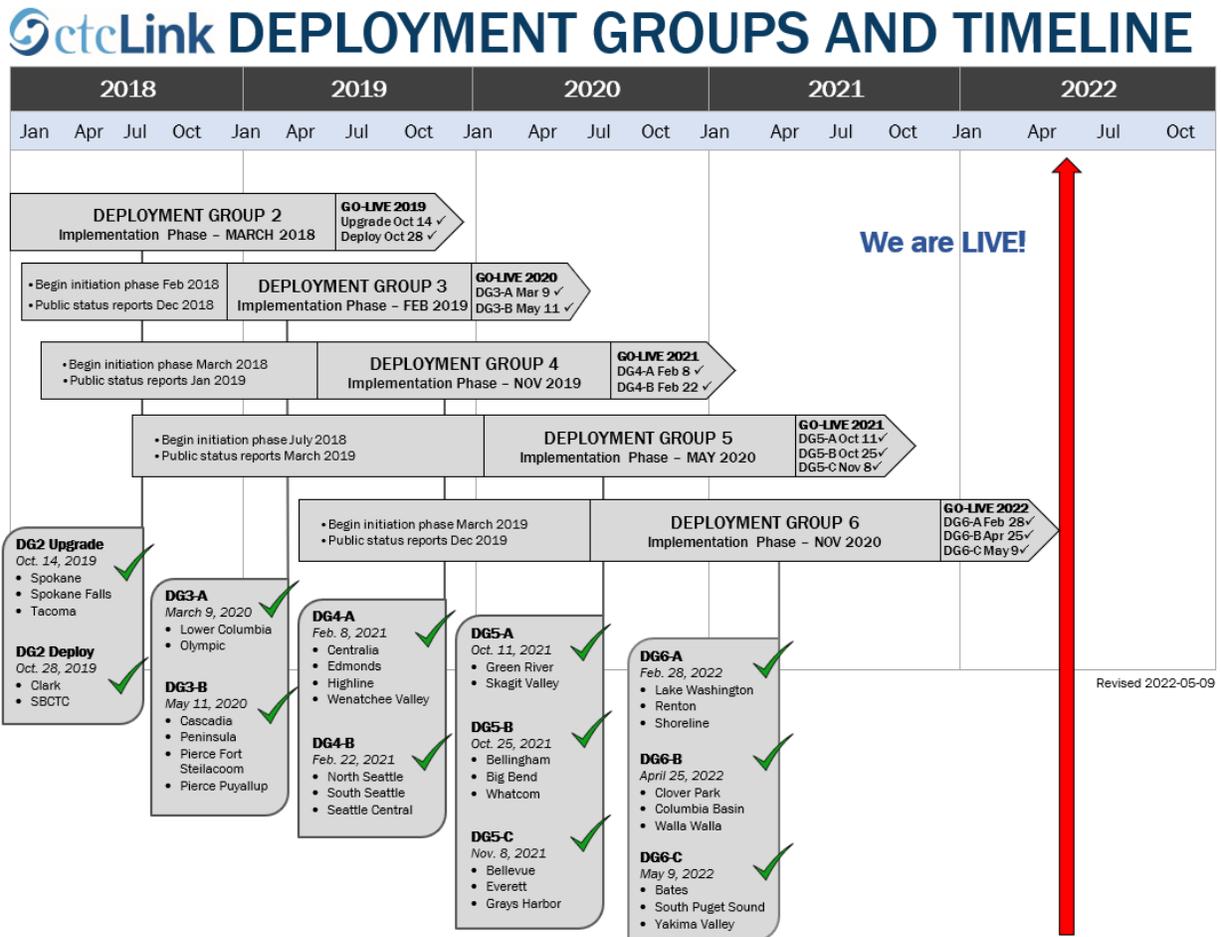
Figure 1. ctclink Quality Gates & Milestones / [text alternative for infographic](#)

CTCLINK QUALITY GATES & MILESTONES



The Deployment Group timeline below illustrates the ctLink Project has successfully deployed ctLink to all of Washington state's community and technical colleges.

Figure 2. ctLink Deployment Group timeline, May 2022 / [text alternative for infographic](#)



Methodology

The DG6 lessons learned are represented collectively as a deployment group rather than by individual college or college SME group. The lessons learned presented in this report reflect information collected from a variety of sources both during implementation and post go-live:

- Three focus groups with DG6 project managers, executive sponsors, and college leadership:
 - LWTech, Shoreline, Renton on May 16, 2022
 - South Puget Sound, Yakima Valley on May 23, 2022
 - Clover Park, Columbia Basin, Walla Walla, Bates Technical on May 24, 2022
- Compiled feedback and SME survey responses submitted by several DG6 colleges:
 - LWTech Implementation Feedback Survey - 30 SME Respondents
 - Shoreline
 - Columbia Basin
 - South Puget Sound
 - Yakima Valley

Each focus group responded to six facilitated questions:

1. What are you most proud of?
2. What do you wish was done differently at the college that would benefit future IT projects?
3. What do you wish the SBCTC ctcLink Project team had done differently that would benefit future IT projects?
4. What information do you wish you would have known earlier in the project that would make the transition to ctcLink more seamless?
5. Do you think the investment of time and resources in implementation activities (such as BPFs and UAT) was worth the results? Please explain.
6. Are there other outstanding areas that need improvement that have not already been mentioned?

Responses to the questions were then categorized into the following areas:

- Project Planning
- Work Packages
- Project Management
- Implementation
- Communication
- Training
- Organizational Change Management (OCM)
- Core Functions

DG6 Lessons Learned: Overview

The results of the DG6 lessons learned underscore the fact that **the ctcLink project is, first and foremost, a “people project.”** The majority of the lessons learned for this deployment group relate to preparing the people and the college to transition successfully to use ctcLink for their business processes.

These findings are consistent with the Moran Technology Consulting, ctcLink Project Quality Assurance, November 2020 report:

DG2 and DG3 were, by most accounts, successful implementations. There were hiccups that are being addressed but, overall, the solution works. As the project has seen the deployments go smoother each time, there can be a belief that future deployment groups will have a much easier implementation. However, while the solution and the conversion processes improve each time, there is one aspect that does not change – the amount of work necessary to be completed by each college in order to have a successful implementation. There are a large number of college core business processes that will be substantially changing with ctcLink, requiring a significant commitment by each and every college in order to execute a successful implementation. - (Moran Technology Consulting, ctcLink Project Quality Assurance, Monthly Report – November 2020.)

The project management challenge

Higher education in general, and Washington’s community and technical college system specifically, is largely unaccustomed to applying industry-standard project management methodology to conduct its large-scale change initiatives. The ctcLink project management model was a primer for many.

DG6 executive sponsors and project managers alike spoke about effectiveness of employing project

management methodology to keep focused on the goal and engage in the activities that bring them to that goal and offered suggestions for future projects.

The human factor

In addition to an intellectual activity, the learning process is, by its nature, an emotional experience. The fact that ctcLink is a “people project” became even more evident due to the layers of stress caused by the pandemic, social unrest, racial inequity, and high employee turn-over rates; in some cases, entire departments turned over.

These challenges were daunting for all the DG6 deployment group colleges, Washington State Board for Community Colleges (SBCTC) ctcLink Project implementation team, and SBCTC ctcLink Support teams. Adding to these challenges were the unsettled landscape of the current remote and hybrid operations (including the impact to college Human Resource SMEs to track the vaccine mandate), college and SBCTC teams met one challenging task after another over the past year and a half, all while running a complex go-live process.

Continuous improvement

A few lessons identified by earlier deployment groups were also identified by DG6. But the absence of repeating lessons between deployments indicate the ctcLink project team effectively implemented several continuous improvement strategies identified from prior Lessons Learned. Highlights of these improvements include the following:

- The impact of the additional practice of final validation activities during Cycle 4 data validation and Mock Go-Live Dry-Run was invaluable
- Increase in meetings with individual college project managers and teams
- Guiding colleges through preparing for post go-live
- Significant improvements in learning and applying security
- Substantially reduced conversion errors due to increased completion of User Acceptance Testing and data clean-up

DG6 Lessons Learned: Summarized Themes

The lessons learned in this report are summarized by themes and detailed as recommendations in the following section by categories.

Points of Pride

The colleges uniformly expressed pride in the following areas:

- College and staff resilience, and perseverance through a very demanding implementation process. This demonstrated their commitment to the project.
- Teamwork at the colleges, between colleges, and with the project team.
- The ability to stay on schedule and be on time with deliverables despite all the competing issues (e.g. COVID, remote/hybrid work, staff turnover and understaffing).
- They completed payroll and posted transactions in the first week of go-live.
- College leadership acknowledging the hard work of staff, being supportive, and providing resources.

Project Planning

When executing a major project, the team should include at least two, full-time professional, technical documenters to bring consistent style and uniformity to the body of documentation. They would deliver technical writing of original documentation, technical editing, and knowledge management. This would have addressed some of the fragmented, multi-document approaches some of the Quick Reference Guides (QRGs) exhibited in detailing end-to-end or other processes.

Colleges needed more specific information on the human resource changes colleges would need to make. Which extra people will you need and in what areas? This information is most useful when shared by other colleges.

Hire Business Analysts, Project Managers, and back-fill staff early. They are instrumental in preparing and stabilizing ctcLink. This required more understanding of the value these positions could provide in both the short and long term.

Assign at least one person full-time, with back-up, as Local Security Administrator (LSA).

The DG6 colleges struggled with staff turnover, both SMEs and at the management level. This resulted in the loss of knowledge about college business processes and a lack of continuity of information from configuration to implementation. Involvement of Business Analysts to understand and document this information and be available through the life of the project would have been beneficial.

Work Packages

Provide the colleges enough information about upcoming work packages that require staff so they can be prepared and scheduled well in advance. The details may be “just-in-time” but the colleges need enough knowledge of upcoming activities, who should be involved, and time to plan.

The Business Process Fit/Gap (BPF) sessions were held too early in the schedule, meaning people didn’t understand enough to make educated decisions for their colleges. Colleges thought the configuration decisions made during BPFs and subsequent testing in UAT were held too far apart to be meaningful.

User Acceptance Testing (UAT) was rated more useful by the PMs and executive sponsors; and less so by the college SMEs. SMEs felt the UAT processes did not match real-life practices and that some steps required input from other SMEs, which slowed the process.

Colleges would have benefited from a more robust testing approach that incorporated end-to-end business process testing. This would have allowed for more involvement from managers to help them understand their new business processes and also other areas of the college that regularly process information but were not SMEs.

Colleges wanted standardization of configuration or at least recommendations and best practices. They did not want to be told that they could set things up however they wanted, as they had not idea of the impacts. More globalization of some configurations, such as student finance.

Project Management

The matrixed management at SBCTC led to variations and inconsistencies in the delivery of some scope. DG6 colleges suggested there be project teams to lead and coordinate Supplemental Systems, dataLink, Query Training, and not just leave it to the colleges to work with the various

SBCTC IT departments. All aspects of project scope should be managed centrally through the agency project management office (PMO) and not matrixed and managed by other areas within the agency.

If the project involves any work from (or with) third parties, this should be clearly identified and managed with plenty of timeline cushion. This was especially true when working with banks.

Provide an accurate and consistent schedule using a tool that works for both the agency and college project managers. The four-week look ahead was helpful, once it was providing consistent information.

Would have liked the PMO to be more intentional on pairing colleges with those already gone live. The Project should educate college project managers, executive sponsors and key leaders about their critical roles; help colleges define roles and responsibilities; and provide opportunities for training and collaboration of project managers and executive sponsors from the agency and colleges.

More organization at college level for communication. Too many people were communicating – needed to be better organized and a better model for communication. Colleges appreciated the communications guides and templates the project team provided.

At small colleges, one employee may oversee multiple areas of responsibility. This creates a potential single point of failure as they attend to multiple work packages. In large colleges, employees are more likely to have a single area of responsibility, which allows competing demands to be dispersed across multiple staff. Project planning needs to take into account the difference in resources at small and large colleges and adjust or provide additional resources where necessary.

The availability, flexibility, and dedication of the project staff helped the colleges to feel supported and part of a partnership.

Develop more quantifiable metrics for status reporting so they are less subjective.

All parallel tests need to be running processes in both systems, not just reviewing the results. Especially for something as critical and as involved as payroll.

Implementation

The implementation practice was very useful. Consider incorporating help desks in Mock Go-Live activities and testing so they can practice their support plan.

Provide support sessions with support staff, trainers, and project implementation SMEs available to guide staff through new processes at the time of transition to a new system. Both Project and Support should collaborate in training, implementation, and support activities for knowledge transfer and consistency.

Make configuration decisions after the college better understands how the product will function and the future-state business processes have been mapped. Provide “best-practice” configuration and allow colleges to deviate only after they understand the impact of that decision. Meet to come to an understanding of common business processes across colleges.

Create common resources for colleges to personalize and use (e.g. training, supplemental systems, project communication plan, and communication templates). For example, local forms (e.g. communications, step sequences for executing payroll, basic starter role sets for task security,

account activation, etc.) were left to the 30 districts to analyze, design and develop 30 instances of separately when a single framework/template could have been provided for college teams to customize or perhaps even use outright.

Communication

Engage mid-level managers throughout the project. This should involve communication, training, organizational change work, and participation in testing where applicable. Staff do well when they receive project information from their managers.

Communicate project changes early, frequently, and in multiple modes.

Provide one centralized location where colleges can go to and access (via links) all project information they need.

Clearly communicate who the right people, skills, and experience are for implementation activities. Positions/job titles do not equate to responsibilities, so the agency PMO should work with stakeholders to determine who the correct people are and how to communicate that information to other colleges.

Operate and communicate consistently. Even if there are multiple project leads there should be a single, standard operation, and communication methodology developed and followed for all official activities (e.g. dates, receivables, meeting requests, etc.)

- Develop one location where people can go for all official communications. Colleges expressed concern about inconsistent messaging, inconsistent ways for receiving and submitting files, each pillar has their own way of inviting people to Webex, workshops and such. They were never sure who to invite, who had already been invited, or if they were the right people to be attending.
- Quality control. Ensure that all information provided to the colleges is accurate and consistent. Continual misinformation/mistakes can erode trust, especially for stakeholders who are not supportive of the Project.

Provide checklists for key activities. They are useful for ensuring that all activities are completed and for quality control and for the colleges to understand the scope of work they are asked to do.

Training

Training should be more inclusive and interactive with more expert guidance.

Engage experts in the originating system (Legacy) in the transition activities related to the new system. They will better understand the impact of the configuration decisions and business process changes and help provide the translation between old and new for end-users.

End-users want to experience the new system. Staff who have used an application for a period of time for their daily work need more than a demonstration and reading materials. These stakeholders learn best by doing. Being in the new system and practicing end to end business processes reduces anxiety and increases adoption of the new system. Invest in a robust training platform which includes hands-on activities.

Involve instructional designers from the beginning to help with training presentations and to develop technical documentation in a consistent format to increase end-user learning and adoption.

End-users want to know why they are doing a task, not just how to do it. Training materials need to provide this information. They also want to know what to do when something goes wrong with a process.

Ensure all presenters (whether Project or Support) have been trained in presentation skills. Some are great functional analysts, but not great presenters.

Provide a model college sandbox learning environment earlier in the implementation timeline, so they could do hands-on learning and understand how the “model” configuration impacts business processes.

Many SMEs and end-users said training could have been approached differently with more hands-on training provided by staff. One SME said, “All the background self-paced training really didn't help me at all. The only way I learn is to view, or do myself with guided practice.”

Colleges had a hard time putting together local training as they felt they did not understand the system well enough to train others. They would have liked to have done more training of end users, but when they got to the time when that was appropriate they were too busy with project activities to focus on end users.

The transition from two weeks of post-implementation live support to a ticketing system is very difficult for staff. They are finally starting to understand the system but no longer have anyone they can go to and ask questions in real time.

The workshops held by CS core were an effective way of learning for the colleges. Colleges felt prepared and supported in these. The focused work on security is another example of an activity the college founds to be beneficial. More of these workshops to learn and then do the work would have been helpful.

Organizational Change Management

The Project should continually encourage colleges to hire staff needed for the implementation effort. This may require the input from governance, quality assurance, and lessons learned from other colleges. Educate colleges to understand resources needed to complete the work, and not over allocate and burn out staff.

In long-term projects, anticipate resistance and attrition. Retaining key staff through the end of the project should be identified as a local and Project risk and managed and mitigated through the life of the project.

Find trusted voices to deliver messages. Colleges need to hear certain things from a trusted, boots-on-the-ground source; not just from the Project.

- Given the general level of skepticism of ctcLink from the college system, some of the advice and guidance given by the ctcLink Project team was unheeded until later verified by peer colleges. For example, the Project and Steering Committee communicated the need for Functional/Business Analyst, as well as Reporting, Security, Test and Training Leads, to the WACTC presidents' group in 2019. Given the budget challenges and local flexibility, this request was considered overstepping.
- Once the earlier deployment groups vouched for the value of business analysts and assigned leads, the message was heard.

Where a replacement to an existing system is being implemented, implementation SMEs should have a working knowledge of the current system. It is difficult to guide and translate to end-users the future state if the current state is not well understood by those working on the project.

Provide a directive framework of organizational change management for colleges to use to manage change at their college.

Ensure that staff understand the current state business processes; not just what tasks they do, but why they do those tasks and how it fits together. If they don't understand the process then different tasks in a new system will not make sense to them and they will try to mimic the way they did the tasks before.

End-users are minimally involved in implementation, but are one of the most important stakeholders. They hold the key to successful adoption and will more readily adopt a project they have been a partner in, as opposed to feeling like they had no choice or the project was imposed upon them. Additional increased communications, in-person meetings, etc. could mitigate the impact of those users not feeling a part of the project.

Core Functions

A desire for more direction and uniformity was common across DG6. Colleges felt it was a missed opportunity to establish more common business processes. Colleges felt they were given too many choices, options and flexibility in setup and configuration when they had no idea how PeopleSoft works.

- Overall, they would have preferred common starting points and tools, such as checklists, a model budget, a model college sandbox, standardized configurations, and easy-to-navigate standardized security settings based on job roles.
- Model college operating budgets didn't exist either. No samples. As in a model budget for a college. Wish we'd had a budget base/model and we build from that rather than scratch
- Model security and SACR by role – base security, then they could adjust. Each college is having to do this work themselves from scratch.

Next Steps

DG6 LESSONS LEARNED DISTRIBUTION	DATE
Distribute to DG6 PMs and Governance Groups	June 2, 2022
Post Final Report to ctcLink Website	June 2, 2022
DG6 Lessons Learned ctcLink Connect blog post	June 2022
Present Lessons Learned to ctcLink Steering Committee	June 14, 2022