Cutover Plan:
The Missing Link to a Successful Go-Live

A White Paper
Introduction

Healthcare organizations today are spending months if not years planning for software projects. The project plan will always include build timelines, training, command center and staff support, as well as steps for optimization. One key component the majority of organizations overlook is the Cutover Plan. Whether it is a software upgrade, software replacement or interface upgrades, without a successful cutover, there will be no go-live. A well designed, reviewed, and constantly adapted Cutover Plan will lead to a successful go-live and end-user satisfaction.

A Cutover Plan lists the steps needed in order to bring a system, interface or application live into a production environment. These steps may include moving build or interfaces from non-production to production, as well as any data conversion that may be needed to go live.

Background / Problems

Most organizations do not plan for cutover prior to go-live. Many organizations bring this role into the project too late or not at all. By not having one person gather all the tasks that need to be done the night of cutover early in the planning process, there will be—and usually are—missed steps that cause additional, unexpected downtime. There are many build steps within the Cutover Plan that are dependent on other application builds being done and technical resources who have to be identified to deal with build glitches. Not taking the time to understand the dependent steps and resource availability could put the go-live at risk. Cutover needs to be treated with as much importance and planning as the command center or at-the-elbow support; they are all key processes within the project plan.

Even project teams that feel they have developed a very robust Cutover Plan find that there is a lack of available staff or time constraints with integrated testing that prevents them from sufficiently rehearsing the Cutover Plan. The Cutover Plan needs to be rehearsed numerous times through “hands on” practice runs or round table discussions. If this step is overlooked, there often isn’t enough communication amongst application teams to know when and what build will be going on during those crucial downtime hours. Lack of attention to cutover tasks can cause issues with the time factor required and the concurrent build.

Solution

Develop a Preliminary Plan Early On – A Cutover Lead should be brought in no later than 6 months before the date of go-live. Ideally, the Cutover Lead should begin drafting a preliminary plan between the building and testing phases of the project. This is where
most organizations slip: waiting until a couple of months before go-live. Bringing this individual into the role early enables him or her to review with the staff the build steps that will occur during the downtime while it is still fresh in mind. This is usually done individually with all the teams that are performing any build, as well as the interface, technical and hardware teams.

When developing this preliminary plan, do not include every build step that will occur during downtime. Instead, include steps that will be of interest to other team members or act as a communication step for another team member to be aware that build has started or ended, so they will be able to coordinate any steps they need to perform. Developing this plan in application silos will cause many unnecessary steps to be included in the plan, but it is easier to weed out unwanted steps than to try and identify steps that might be missing.

The location build for Epic ADT is a good example of this. During cutover, the Epic Cadence build team will possibly be building over 100 different locations in the system—a process that will take about 30 minutes. The Cadence build team ensures nothing is missed by creating a build tracker to track each of the locations. No other team needs to know the specifics of the detailed build; they just need to know when the build has started and, 30 minutes later, when it is complete, so they can begin their own build, which is dependent on these changes. So many peer systems that will need to change locations in their own system will watch for this task to be completed in Epic so they can start their build. In the Cutover Plan, there would be a line item indicating the Cadence Location Build has begun, with the detailed plan linked in the document cell, then another line stating “Cadence Location Build Completed” and communicated out to teams.

**Review the Cutover Plan Numerous Times** — Once the steps are placed in the Cutover Plan in a sequential order, it is important to review these steps as a group. That might sound simple, but, because of schedules, it can be very difficult to gather the resources necessary to review the Cutover Plan. The Cutover Plan should be tested or reviewed a minimum of *three times* (see Table 1). Timing is everything when it comes to a Cutover Plan. By developing the plan early on, communication to the executive staff can occur with an estimate of the downtime needed for the cutover steps. After the first review of the plan, which should begin 3 to 4 months prior to go-live, a rough estimate of steps and timings are reviewed. With each subsequent review, the Cutover Plan will be more precise.
### Table 1 – Cutover Plan Schedule

<table>
<thead>
<tr>
<th>Review of Cutover Plan</th>
<th>Timing</th>
<th>Purpose</th>
<th>Goal</th>
</tr>
</thead>
</table>
| 1                      | 3-4 months prior to go-live | Review rough estimate of tasks and time frames | - Transparency to the organization of steps and timing that will occur is established  
- Preliminary duration of downtime is established  
- Intertwined tasks are revealed among team members as well as shared resources  
- Communication points are identified  
- Additional tasks that were not accounted for are identified |
| 2                      | 2-3 months prior to go-live | Review sequencing, timing and ownership     | - All relevant tasks are listed and durations and sequencing confirmed  
- All resources are identified and time accounted for shared resources  
- Finalized duration for downtime is released to the organization  
- Minimal tasks, if any, should be added during this review |
| 3                      | 1-2 months prior to go-live | Finalize plan; few changes if any should be made | - Timing, tasks and durations are confirmed  
- No changes should be made at this point  
- Should be a solid run through of the plan with very little clarification needed |

### Methods of Cutover Plan Review

There are two types of review of the Cutover Plan that can occur: a “hands on” run through or a round table discussion. In today’s organizations, there are many peer systems that are affected by conversions and implementations. Not all peer systems have the ability to provide a separate testing system for cutover. Most systems are only able to provide one testing system and that is usually reserved for integration testing. If this is the case and an actual “hands on” rehearsal is not an option, then a round table discussion works just as well. In certain instances, a round table discussion actually performs better than a “hands on” rehearsal and solidifies the group thought process of what is being done. By talking through the activities, it also brings out workflow and process questions that otherwise might have been overlooked. The assumption is that everyone will test their build timings outside of this meeting. Another advantage is that
some test systems are set up on a different server than the production servers, and a “hands on” approach could give invalid timings.

By reviewing the Cutover Plan line by line, everyone will begin sequencing their steps within the plan. It’s a natural progression, but a word of caution: do not sequence the first initial documents with any type of numbering strategy. Too many tasks will be moved during the run through that will cause a logistics nightmare. It is best to review the activities by date and time sequence before using any numbering.

**All Tasks Need to Be Owned** – Pulling together a list of tasks performed during the downtime is quite easy and is usually outlined in build trackers or implementation guides. What these documents do not provide is ownership. When developing the plan, there needs to be an owner of the task—the person performing the task during cutover as well as an application owner. It is best to plan for the worst. There can be connection issues, family emergencies or sickness that occurs during downtime, so it is best to have an ultimate owner who is responsible for making sure the task is complete. By identifying this owner, the Cutover Lead can be relieved of some of the pressure that can occur if there are staffing issues that night.

**No Task Is Too Small** – All tasks need to be listed within the plan if it affects another team. Ideally, a Cutover Plan is created so that anyone could take the plan and run with it. All steps from kicking off a conference bridge, to communication steps between application teams, should be listed. A good rule of thumb is: if it is not on the plan, than no one but you knows it’s getting done.

Many teams decide to have their own cutover or build plans they will use during the downtime, and this is acceptable. A link to this document should be placed within the master Cutover Plan. For example, if a location build will take 45 minutes to be done, then within the master Cutover Plan, a simple task line reading “facility build,” with a duration of 45 minutes will appear. There should be a link, though, to the document the team is using, so the lead and anyone else interested can see the exact steps that are going to occur should there be an issue. This minimizes clutter on the overall master plan but still includes all the steps that are occurring during that time.

**Sequence the Final Plan** – A simple Excel spreadsheet will suffice to capture this information due to the ease of maintaining the changes that will occur during the planning process. To make it a complete success, the final Cutover Plan needs to have a dependency link for all the tasks. This will enable the Cutover Lead to adjust the schedule in real time, and all the following tasks will adjust accordingly. It would be almost impossible to manually adjust each line item during the cutover. A simple Internet search for building dependencies in Excel will provide step-by-step directions. See Appendix A for spreadsheet creation.

**How to Share the Plan** – You can share the view of the plan with everyone, however the Cutover Lead should be the one and only owner of the plan. Cutover Plans can be quite lengthy, sometimes 600 to 800 lines. Posting the plan for others to see on a web-
sharing meeting is ideal. Everyone can see what is happening, and resources do not have to disturb others on the conference bridge to find out where in the plan everyone is. By using a Gantt chart, one can present the information in a high level view, which will be of interest to the executives who are looking for an overall view of process and progress and not the specific detail. Displaying this chart online while updating in real time will provide an up to the moment update on progress at any time for anyone interested. Figure 1 is an example of this chart.

Figure 1 – Sample Cutover Plan Gantt chart

As time progressed, the time column was highlighted to draw attention to the progression of the Cutover Plan.

Figure 2 is a detailed Cutover Planning Worksheet. It looks busy and complex, it’s because it is. By using the colored Gantt chart shown in Figure 1, executives could “see” the progress within the plan without getting into the detail that the Cutover Lead must manage. Using both documents will have a positive effect on the experience.

Figure 2 – Sample Cutover Planning Worksheet
Conclusion

A well designed and organized Cutover Plan will lead to a successful go-live, possibly enabling end users to return to the systems ahead of schedule, but most importantly guaranteeing that all tasks are completely addressed. Even with a great Cutover Plan, there is a need to communicate the progress out to not only those performing the tasks, but also those who have vested interest in a successful project. It might be necessary to think outside the box to display this information. In the end, however, it will lead to great satisfaction. Lastly, as with any play, musical or symphony orchestra: rehearse, rehearse, rehearse and rehearse. With every cutover rehearsal, downtime becomes smoother and less stressful for all those involved.
## Appendix A

Create a spreadsheet using the following data elements:

<table>
<thead>
<tr>
<th>Column</th>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Task Ref</td>
<td>Task number used as identification for dependency field</td>
</tr>
<tr>
<td>B</td>
<td>Go-Live Group</td>
<td>Use if multi-phased go-live (Interface Go-Live, Interface Go-Live, Data Conversion Go-Live)</td>
</tr>
<tr>
<td>C</td>
<td>Dep #</td>
<td>Use task ref number, which is the dependency</td>
</tr>
<tr>
<td>D</td>
<td>Start Date and Time</td>
<td>Start date and time – use standard date and time format – use equation if there is a dependency; if no dependency, insert date and time</td>
</tr>
<tr>
<td>E</td>
<td>Duration</td>
<td>Duration in minutes (numeric only)</td>
</tr>
<tr>
<td>F</td>
<td>End Date and Time</td>
<td>Stop date and time automatically calculated using formula</td>
</tr>
<tr>
<td>G</td>
<td>Category</td>
<td>Category to group tasks (Interfaces, Lab, Pharmacy, Patient Access, Communication, Command Center)</td>
</tr>
<tr>
<td>H</td>
<td>Task Name</td>
<td>Description of task</td>
</tr>
<tr>
<td>I</td>
<td>Details</td>
<td>Important details that must be communicated regarding the task</td>
</tr>
<tr>
<td>J</td>
<td>Application</td>
<td>Application (different than grouping – use application name)</td>
</tr>
<tr>
<td>K</td>
<td>Dependencies</td>
<td>Detailed dependency description if needed; field may be omitted</td>
</tr>
<tr>
<td>L</td>
<td>Performing Team Member</td>
<td>Performing team – analyst or team member name performing the task</td>
</tr>
<tr>
<td>M</td>
<td>Owning Team Member (escalation)</td>
<td>Owning team member escalation – Lead or manager responsible for application and analyst</td>
</tr>
<tr>
<td>N</td>
<td>Status</td>
<td>Status – use a drop-down selection field (Not Started, On Track, Off Track, Complete)</td>
</tr>
<tr>
<td>O</td>
<td>Linked Documents</td>
<td>Insert links to application-specific complete Cutover Plan</td>
</tr>
</tbody>
</table>
Start date and time dependency equation:
=VLOOKUP(P,Q,R:S,T,FALSE)
P = Column Letter you placed the Dependency number in (If following chart above will be C)
Q = Excel Row number that this task is in
R = Letter first column Data is in (If following chart above will be A)
S = Column following the stop date and time column (If following chart above, will be G)
T = Number of columns between R and S (If following chart above will be 6)
Place this equation in the Start Date and Time. Cell must be formatted using the following format
mm/dd/yy h:mm. For ease, once equation is defined, copy and paste equation remembering to
replace Q with the Excel row the task is in.

Stop date and time equation:
=U+VX/60/24
U = Column the Start Date and Time is in (if following chart above, will be D)
V = Excel row number that the task is in
X = Column the duration is found in (if following chart above, will be E)
Place this equation in the Stop Date and Time. Cell must be formatted using the following format
mm/dd/yy h:mm. For ease, once equation is defined, copy and paste equation remembering to
replace V with the Excel row the task is in. If there is no duration in X – stop date will still
populate; there is no need to place a 0 in the cell.
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