

Workflow in Teaming

Creating Formal Structures for Your Collaboration Processes

Many processes that exist within an organization are manual by nature, typically making them prone to human error, inherently inefficient, and extremely difficult to manage, track and execute. Not only can things get lost in the shuffle within these manual workflows, but they often lead to significant delays in getting things done.

Novell Teaming workflow allows you to create a more formal structure for certain collaboration processes, giving you precise control over how information flows through your organization.

For example, in a traditional approval process, a person might submit a purchase request to an executive admin, who then forwards the request to the executive's Inbox for approval. This request can sit in the Inbox for days waiting to be approved. Once approved, it moves to the accounting department where it might sit another day or two waiting to be processed and entered into the system. Additional delays can lengthen the process if anyone along the chain happens to be out sick, on vacation, or puts off executing their portion of the approval process. The bottom line is simply, too many inefficient manual aspects associated with these traditional processes remain.

While Novell Teaming is all about empowering your people to collaborate and work together more effectively, part of that empowerment comes from built-in workflow capabilities in Novell Teaming that enable you to automate processes to save time, eliminate errors and improve overall efficiency. You already know that Novell Teaming provides a virtual workspace armed with collaboration tools that make it easier for your workgroups to share and act on the content they need to do their jobs. While its document management, calendars, discussion forums, wikis and blogs are central to enabling that workgroup collaboration, the workflow capabilities in Novell Teaming can enhance your workgroup interactions even more.

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It gives you the ability to enhance and streamline processes key to the success of your business operations.

> How Workflow Works

Unlike other teaming solutions that offer workflow, you don't have to be a programmer or developer to put in play the workflow capabilities provided by Novell Teaming. It employs a simple-to-understand structure that consists of six main elements, namely: States, Transitions, Entries (also known as Forms), Folders, Access Control, and Notifications and On-entry/On-exit settings.

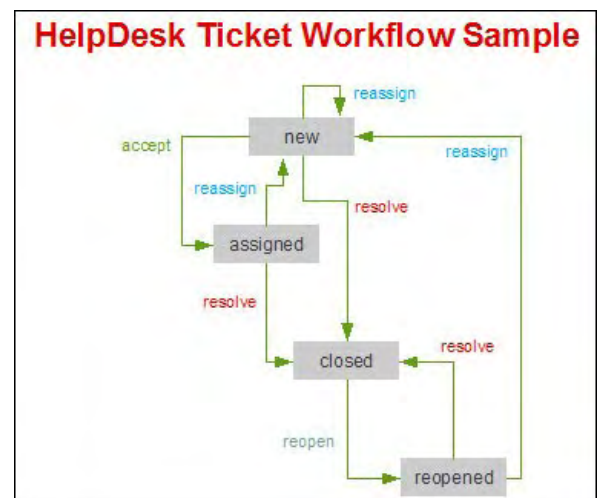
States represent points in time when someone or something needs to take an action or make a decision. For example, a basic help desk ticket workflow might consist of the following four states:

- **New** – When a user opens a new help desk ticket
- **Assigned** – When the ticket is assigned to a help desk technician
- **Closed** – When the ticket is considered resolved and closed
- **Reopened** – When the ticket is reopened for whatever reason

Transitions represent movement from one state to another. For example, in the help desk ticket workflow, the transition from the "New" state to the "Assigned" state might consist of a help desk technician accepting the ticket. Moving from an "Assigned" or "New" state to a "Closed" state would likely require the transition of the trouble ticket being resolved. (See Figure 1.)

Entries (also known as forms) provide users the actual interface needed to interact with or participate in a workflow. In a help desk workflow, an entry or form would consist of the electronic trouble ticket that a user would fill

Figure 1: *In Novell Teaming workflows, states represent points in time when an action needs to be taken or a decision needs to be made, while transitions represent movement from one state to another as shown in this sample help desk workflow.*



out to report a problem. This form would likely have a place for the user to describe the problem and any other pertinent information. When technicians review trouble tickets, the workflow will typically present a version of the trouble ticket forms that are different than what the end user sees. The technician version of the form would be customized with different options or actions that fit the needs of the technician, such as the ability to accept or assign the ticket, make notes on the ticket, or close the ticket. In short, entries are used to collect the information needed to transition from one state to another as defined by a workflow.

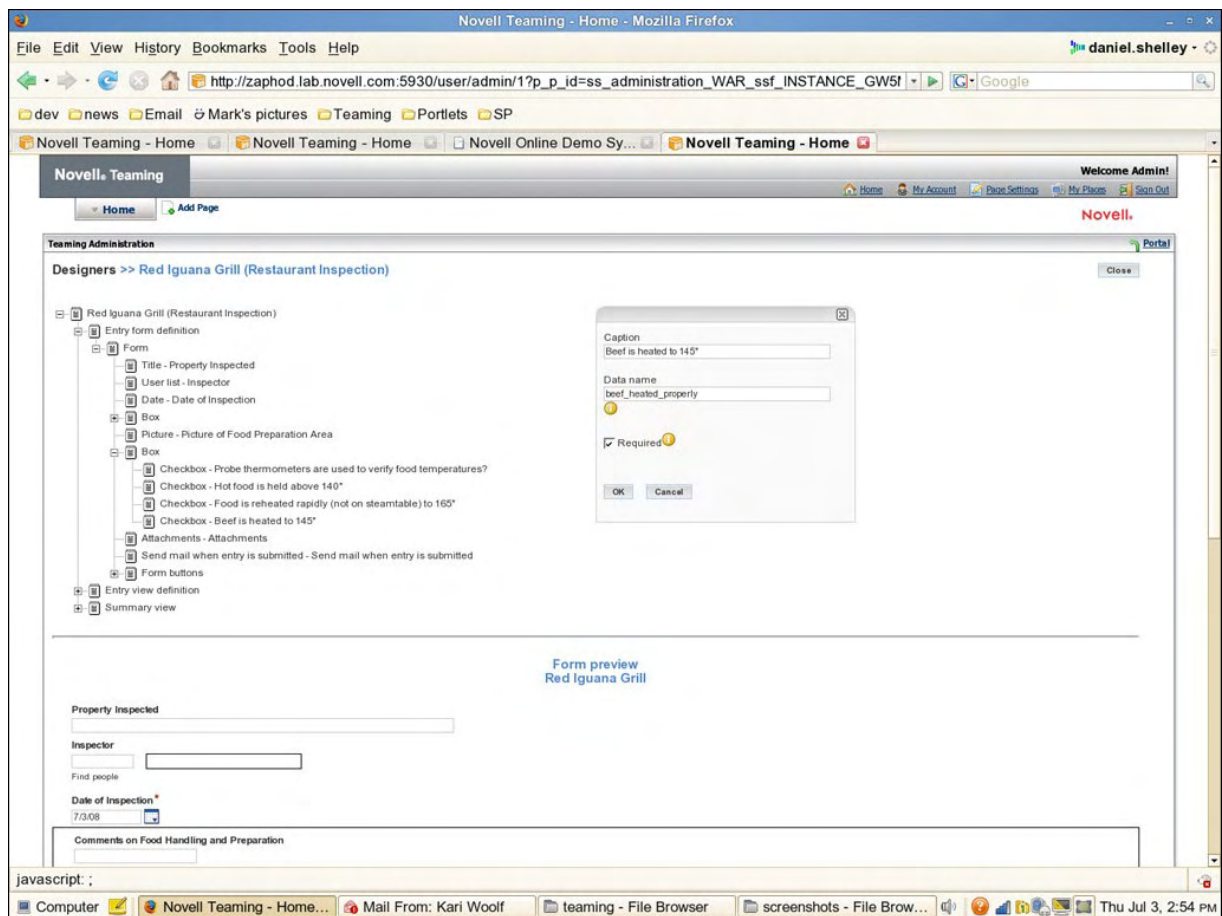
Novell Teaming workflow lets you take advantage of both default entries and custom entries. Default entries consist of the user interface screens you normally see in Novell Teaming for blogs, discussions, wikis, photos and folders. Custom entries allow you to modify any of these default forms to fit your specific needs for a particular workflow state or to enable a certain workflow transition. (See Figure 2.) The discussion entry is one of the most basic forms in Novell Teaming and as such is probably the most common form used to create custom entries.

Folders are simply the location where different aspects of a workflow are stored within Novell Teaming. For example, you might assign blank forms for user trouble tickets to be stored in your global workspace under a folder called "Trouble Tickets." Once a form is filled out and submitted you might have it stored in your help desk team's workspace in a folder called "New Tickets." When a ticket is closed you might archive it in a folder called "Closed Tickets," and so on.

Notifications and the On-entry/On-exit settings provide the automation in Novell Teaming standard workflows. As the name implies, notifications use e-mail to notify an administrator or any user that a certain action has occurred within a workflow process. Typically, these notifications alert participants that a workflow has reached a state that requires their attention, provide information to managers who are tracking the process of a workflow, or provide a participant the opportunity to view or work on an entry when it reaches a particular state in the workflow.

In a trouble ticket workflow, you would likely have notifications sent to help desk team members when a new trouble ticket is opened. When a trouble ticket

Figure 2: Custom forms can be easily created or revised to capture the specific information needed to move a process forward.



remains in a “New” state for a certain amount of hours or days without being transitioned to an assigned state, you might want a reminder notification sent to team members. You might also want a notification sent to help desk supervisors, alerting them to the fact that no action has been taken on the trouble ticket within the predefined acceptable time.

Likewise, when technicians close trouble tickets, notifications can be sent to the originating users, allowing them to indicate whether they agree or disagree that their problems have been resolved. If they agree, the trouble ticket can transition to a “Closed” state. If they disagree, the trouble ticket can transition back to a “New,” “Assigned,” or some other appropriate state that you predefine.

On-entry and On-exit settings prescribe what happens upon entry or exit of a particular state. These settings often work in concert with notifications, such as in our example where notifications are sent to help desk team members when a new trouble ticket is opened. This is an on-entry setting since it represents an action that needs to take place when a trouble tickets enters a “New” state. The notification example for closing a trouble ticket is an on-exit action since it dictates what must happen as a trouble ticket exits from the “Assigned” state in an attempt to transition to a “Closed” state.

However, on-entry/on-exit settings are not limited to notifications. Moves are another common on-entry/on-exit action. It’s the on-exit setting you would use to move a workflow form from one folder to another. As mentioned before, your blank trouble ticket forms might be stored in a public workspace named “Trouble Tickets,” but when a user submits a trouble ticket, you want it moved to the “New Trouble Tickets” folder located in your help desk team’s workspace. To do this you simply set the on-entry setting of your New state to move trouble ticket forms to that folder once they enter the New state. Likewise, when trouble tickets enter the Closed state, on-entry can move those trouble ticket entries into your “Closed Tickets” folder.

Access Control in Novell Teaming workflow lets you create and assign access control lists (ACLs) to each state, specifying who can and cannot perform actions during the state of that workflow. It lets you establish who can create, see, modify, delete or respond to entries within a specific state. It also lets you determine who can transition an entry/form into or out of a state.

In a purchase request workflow scenario, these access controls would allow you to give all your users the ability to submit a purchase request, while limiting the ability to approve or deny those requests to specific managers or executives. And, when a purchase request gets approved, it might move to a processing state where only certain individuals in accounting can view it or access it. These access controls enable you or your workflow designer to set the needed levels of security and access for each task within your workflows.

While Novell Teaming provides out-of-the-box all of the workflow capabilities just described, you can considerably enhance and optimize your workflow processes by taking advantage of the Advanced Workflow add-on module.

> Advanced Workflow

Advanced Workflow enables you to introduce significantly greater levels of automation into your workflows.

While standard workflow in Novell Teaming automates certain in-state actions, such as sending notifications when certain conditions exist within a state or moving entries from one folder to another upon entry or exit from a state, transitions between states are manual with standard workflow. In other words, to move a trouble ticket from a New state to an Assigned state, someone has to manually assign or accept the trouble ticket. It might be as simple as clicking an Accept button on a trouble ticket form, but it still requires that physical or manual action to transition that trouble ticket from one state to another. Advanced workflow allows you to automate those transitions.

For example, when a user opens a new trouble ticket, Advanced Workflow can automatically assign that ticket to a help desk technician based on specific criteria that you pre-establish. If a trouble ticket remains unresolved for a certain amount of time it can be automatically escalated or transitioned to an escalation state. This ability to automate transitions gives you the power to leverage complex sets of conditions that reduce human interactions and increase efficiencies, as well as allow you to establish workflow policies that automatically govern the execution and the paths that your workflows follow.

The following bullets outline the main automated transitions you can take advantage of with Advanced Workflow in Novell Teaming (See Figure 3):

- **Transition after an elapsed time:** Transitions a workflow to another state after a set amount of time, such as escalating a trouble ticket if it hasn’t been resolved within a certain amount of time.
- **Transition on variable:** Transitions a workflow to another state based on a certain criteria, such as a counter reaching a certain number.
- **Transition on comment:** Transitions a workflow to another state when a user inputs a statement, which can be useful if such comments indicate that a request requires further review before it can move forward in the process.

- **Transition on entry data values:** Transitions a workflow to another state based on entry of certain defined values, such as requiring executive approval for purchase requests over \$20,000.
- **Transition on modify:** Transitions a workflow to another state based on any modification in the current state.
- **Transition on response:** Transitions a workflow to another state based on the answer to a workflow question.

Another automated transition within Advanced Workflow is the Wait for Parallel Thread(s) to End transition, which enables a workflow to only transition once parallel workflows are completed. This transition deals with the ability of Advanced Workflow to allow your workflow processes to simultaneously travel down multiple paths. Processes in standard Novell Teaming workflows are serial in nature; as a process move from state to state, it requires interactions from one person to another person to another. Advanced Workflow in Novell Teaming allows for parallel processes.

For example, you can have a request sent to three or more individuals for simultaneous approval. Your policy might specify that before it can transition to the approved state that all individuals have to approve it or a simple majority needs to approve it. Or, maybe the policy indicates that if the request received a minority approval that it transitions to a state that requires the requester or requesters to make revisions to the request.

Advanced Workflow's capacity to automate transitions and allow multiple processes to work in parallel are what

really give you the flexibility and power you need to significantly extend your ability to optimize and streamline your processes.

> **Workflow Dashboard**

To facilitate the monitoring and management of your workflows, Novell Teaming gives you the ability to create custom workflow dashboards for both standard workflow and Advanced Workflow processes. This custom dashboard feature derives from the inherent ability in Novell Teaming to create accessory panels.

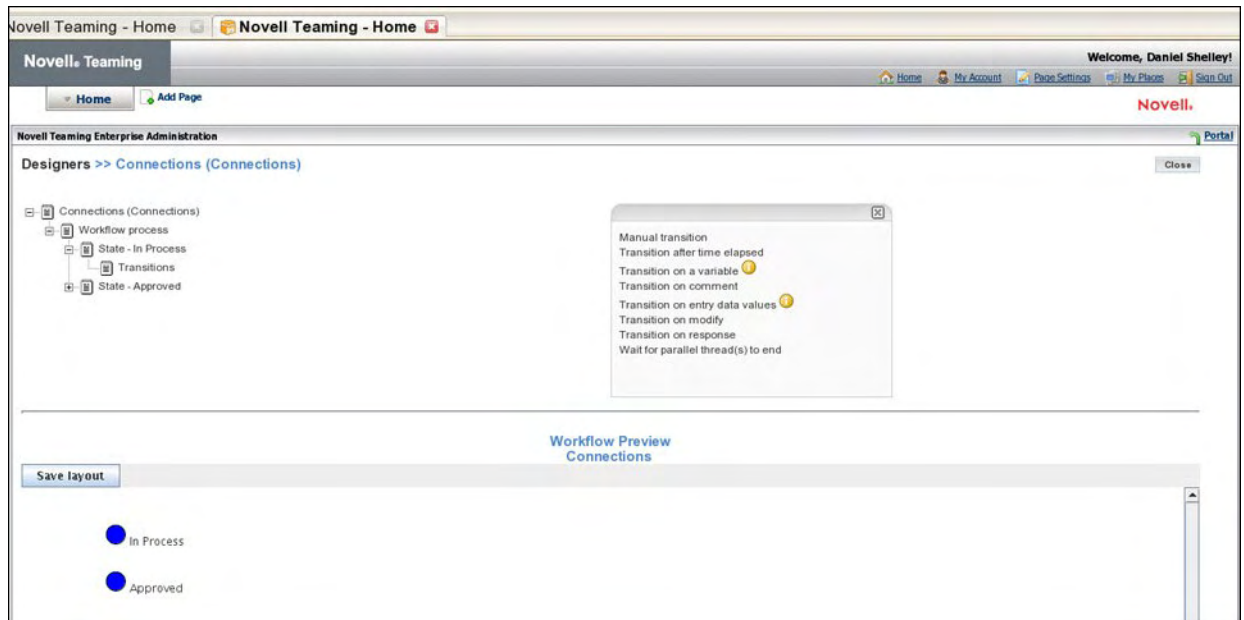
Novell Teaming has accessory panels that you can activate in your workspaces using about a dozen preconfigured accessories, including calendars, blog summaries, wikis, guest books, buddy lists and others. One of the available accessories is called a summary view. Depending on the access control rights you set, you can allow workflow participants or managers to use this summary view accessory to get a summary or dashboard view of the current state of all pertinent workflows.

These workflow dashboards can allow business managers to get instant glimpses of all the workflows they're responsible for. Dashboards can let help desk managers get a summary view of how many trouble tickets are in the queue, how long tickets have been waiting to be assigned, or how many have been resolved.

> **Workflow Best Practices**

The most challenging aspect of implementing a workflow is not the phase of setting it up and configuring the different states, transitions and policies. Rather, the most

Figure 3: A variety of options are available in Advanced Workflow to help you automate the flow of a process based on a variety of input and criteria.



difficult part is doing the business analysis that you need to do ahead of time to understand how your processes really work, what they do, who is involved in those processes all along the way, and policies or rules that need to be established to govern those processes.

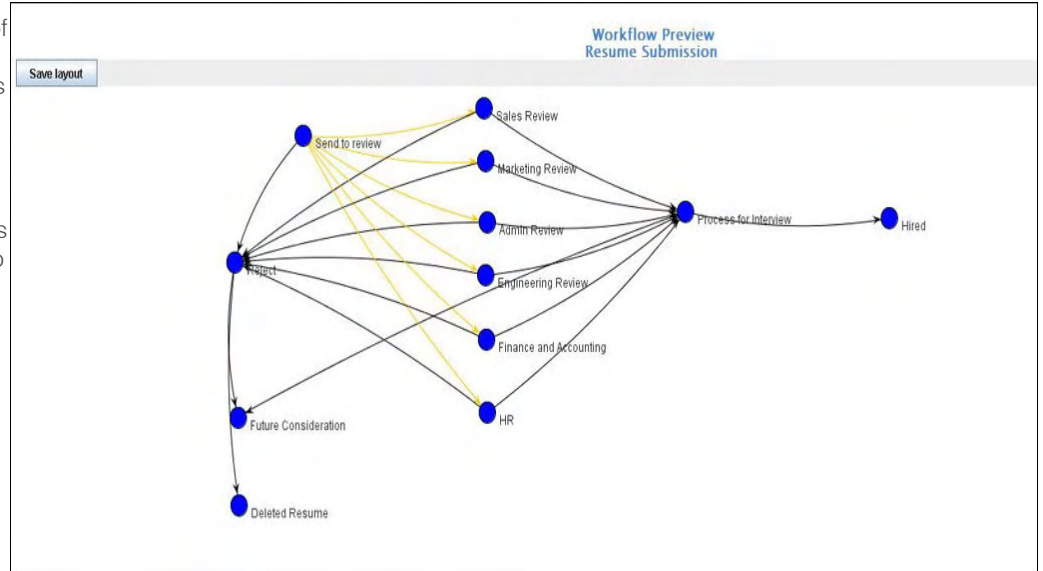
With this in mind, whether you leverage standard or Advanced Workflow in Novell Teaming, Novell recommends you follow five best practices when creating workflows:

- Know the process: Interview everyone in the process.
- Always design your workflow on paper first: Write down all your states, transitions, requirements for transition, and any variables or questions that may be needed.
- Create all your states.
- Next, create all your transitions.
- Fill in the rest.

Even though you might be responsible for designing a workflow, chances are you probably aren't as familiar with the process as you'd like to be. In fact, there might not be a single person in your entire organization that knows the whole process. So, you'll need to interview everyone along the process chain to understand what's involved in their portion of the process, where the process goes next, and under what circumstances does the process move to one state or another. You need to understand what makes the process succeed and what can make it fail. After you've conducted your interviews and you feel you understand how the process really works, it's time to put it on paper. You need to list or diagram the different states, describe the transitions between the states, including when and why transitions take place.

This exercise of putting the process down on paper provides you a number of benefits. First, it makes it easier

Figure 4: Documenting a workflow on paper can help you resolve problems and discover new ways of streamlining and improving your processes.



for you to visualize the overall process so you can discover and solve potential problems before you expend effort utilizing Novell Teaming workflow to digitize your processes. This visualization can also open your eyes to new ways to streamline and improve your processes. (See Figure 4.)

Additionally, putting your processes down on paper make it very easy to complete the next two best practice steps: creating your states and then creating your transitions. Whether you're using standard or Advanced Workflow, you should always create your states first. The main reason for this is that you really can't create your transitions unless you have states for them to go to.

Finally, once you have all your states and transitions completed, you fill in the rest of the workflow with your notifications, actions, policies and other such elements.

Even if you're quite thorough in your interview, design and implementation efforts, chances are you won't get everything exactly right the first time. But that's okay. You won't have to start from scratch. Novell Teaming makes it very easy to modify and adjust your workflows to bring them in line with how they really need to execute. And that's what workflow in Novell Teaming is really all about, bringing your team processes and collaboration activities in line, formalizing them and automating them to save your people time and effort, while enabling your team members to stay focused and keeping your projects on schedule. **N**