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ITIL IMPLEMENTATION AND PROCESS GUIDE

ServiceWise for ITIL includes out-of-box configurations for Incident, Problem, Change, and Configuration management.

How do you implement ITIL?

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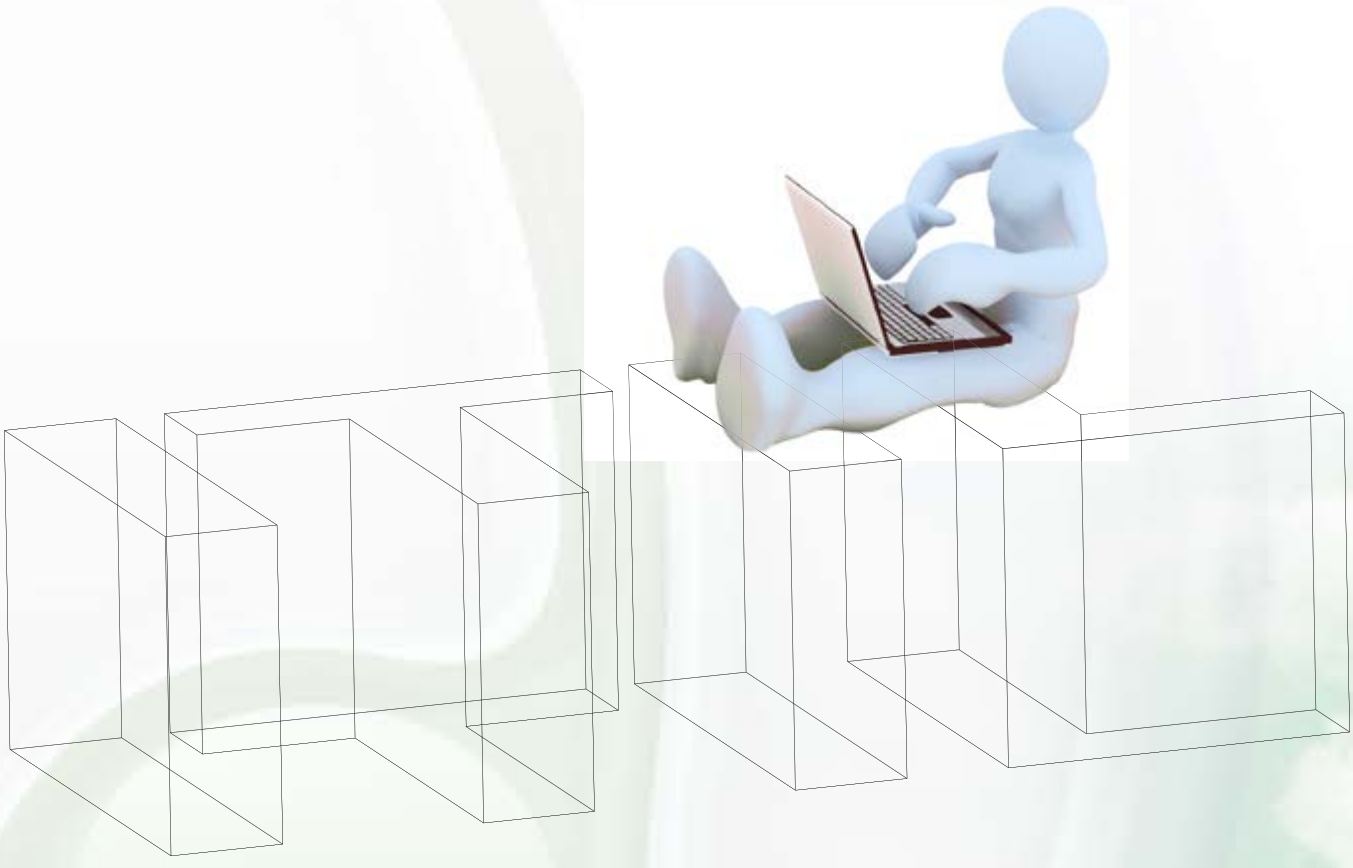
What is ITIL?

The Information Technology Infrastructure Library (ITIL) is a set of concepts and practices for Information Technology Services Management (ITSM), Information Technology (IT) development and IT operations. ITSM derives enormous benefit from a best practice approach as it is driven both by technology and the huge range of organisational environments in which it operates; it is in a state of constant evolution. Adopting ITIL can offer users a huge range of benefits that include:

- Improved IT services
- Reduced costs
- Improved customer satisfaction through a more professional approach to service delivery
- Improved productivity
- Improved use of skills and experience
- Improved delivery of third party service.



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How do you implement ITIL?

There are some pre-requisites that should be met before starting an ITIL project. First, you will need at least one person devoted to the project management and coordination of the implementation. You will also need a Service Desk to act as an IT interface. Finally, you will need an ITSM tool. Remember, however, that your processes should drive the tool and not the other way around. The tool can often offer guidance on best practice but should not restrict your efforts. The high level areas in an ITIL implementation are:

- Map out your current processes
- GAP analysis
- Plan and create a roadmap
- Implement, communicate and measure
- Continual improvements

Map the processes

No organizations are the same in the way they operate or how they decide to implement ITI in terms of functions and organizational structure. Their actual process designs will, however, have a great deal in common since they will use best practices in IT service management. This leaves two choices when implementing ITIL process flows. They can design detailed processes from the ITIL documentation, or tailor generic templates. If you use process templates as a starting point it will enable the organization to immediately start to interact with ITIL in a positive way. ITIL documentation published by the Cabinet Office contains a lot of detail about how to implement best practices and process but make sure you tailor it for your circumstances and way of working.

GAP analysis

ITIL describes a gap analysis in the Continual Service Improvement (CSI) Book:

"A gap analysis is a business assessment tool enabling an organization to compare where it is currently and where it wants to go in the future."

Before a gap analysis can be undertaken, the organization must clearly understand its long-term vision with respect to the subject of the gap analysis. The scope of a gap analysis also needs to be clearly defined. An organization might conduct a gap analysis on their overall organizational processes and IT capabilities, or they might focus a gap analysis on some aspects of their business operations and processes. Additionally, a gap analysis could be focused on overall information technology or some aspect of information technology, such as a tool implementation.

ITIL does not come with a scale to help identify the extent to which an organization adheres to the best practice. Many different scales have been used though. Most commonly, a scale that resembles a CMMI scale is used. This scale shows levels from 1 to 5, with level 1 being low maturity and level 5 representing high maturity.

Finally, the conclusions of a gap analysis must describe how much effort is required in terms of time, money, and human resources to achieve the vision.

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Plan and create a roadmap

The aim of the roadmap is to provide an overview of how the implementation will be executed. In order to create the roadmap, each of the actions needs be reviewed and classified by the time and effort for completion. A good method is to use time frames in the ITIL implementations such as:

0-6 months

6-12 months

12-18 months.

In the initial six months the focus should be on actions that address high priority gaps and quick wins. Group the actions by the process they support and make them part of your Service Portfolio. It is also important that you start collecting metrics on your quick win so you show progress and justify the project.

Implement, communicate and measure

Now it is time to start implementing your plan. Start working through the action items, define your critical success factors, create a schedule, and identify the team and owners for the process/action item. In fact, you can use ITIL to implement ITIL by using the change and release framework.

Another critical area of an ITIL implementation is the communication. It is vital to draft a communication strategy to make sure you communicate frequently about positive progress and answer the question, "What is in it for me?" at all levels. Also, make sure you cover all available media formats, such as: email, newsletter, intranet, training sessions, and mentoring. Finally you will need to identify an initial set of metrics, often called Key Performance Indicators (KPI). The KPI's can be used to measure the effect of the ITIL implementation project and help determine whether a process is working as it should and is likely to produce the desired outcome. Careful selection of appropriate KPIs for each IT service management process will provide a measurement framework that can be used to monitor process performance. One of the best ways of implementing KPIs is to use a Balanced Scorecard. The Balanced Scorecard is a strategic performance management framework designed to help an organization monitor its performance and manage the execution of its strategy. A balanced scorecard is divided into four areas: Financial information, Customer Metrics, Internal Business Process Measurements and Learning and Growth Identifications.

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The definitions for the perspectives are:

- Financial Information covers the financial objectives of an organization and allows managers to track financial success and shareholder value.
- Customer Metrics covers customer objectives, such as customer satisfaction and market share goals as well as product and service attributes.
- Internal Business Process Measurements covers internal operational goals and outlines the key processes necessary to deliver the customer objectives.
- Learning and Growth Identifications covers the intangible drivers of future success such as human capital, organizational capital and information capital including skills, training, organizational culture, leadership, systems and databases.

The idea of the Balanced Scorecard is simple, yet extremely powerful if implemented well. You may use the key ideas of the BSC to create a unique strategy and align your organization and its processes to the objectives identified in the strategic map. The BSC can also be used to aid in designing meaningful KPIs to facilitate improved decision-making.

Continual improvements

The last step in the ITIL implementation is to check if you met your implementation plan. If not, ask why and determine how you will improve. Below is the ITIL continual service improvements (CSI) circle. Together with ITIL's CSI it helps maintain the progress of a business process as it oversees the development and workflow of a company. CSI is a vital aspect of ITIL; it is the stabilizer of the whole service lifecycle.

As CSI identifies the areas in need of change or the soft spots of the business, the collected data can be used to start the onset of change. CSI can easily distinguish with greater clarity what the university needs the most. The 7-step improvement process is an integral part of CSI as it makes it possible for service resources and teams to identify and understand which processes and aspects of their operations are in need of major monitoring and enhancement.

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Where do you start with ITIL?

There is no set way of where to start implementing ITIL; however the best way is to look for areas of the business that needs solutions and start there. Implementing ITIL in a "big bang" approach rarely works. This is due to the fact that it is not only a cultural change; it is also major process and workflow overhaul. This is difficult to do effectively in a "big bang" approach.

The core ITIL processes you will need are:

Incident Management is the process that captures, tracks, assigns, and manages incidents along with communicating with the end-user. ITIL defines an incident as any event which is not part of the standard operation of a service and which causes, or may cause, an interruption to or a reduction in, the quality of that service. The stated ITIL objective is to restore normal operations as quickly as possible with the least possible impact on either the business or the user, at a cost-effective price. The benefits of Incident Management are:

- Reduced business impact of Incidents by timely resolution, thereby increasing effectiveness
- The proactive identification of beneficial system enhancements and amendments
- The availability of business-focused management information related to the SLA.

Problem Management is the process that manages the lifecycle of all the problems including detection, analysis, resolution and prevention of incidents. Problem Management also collects and analyses data about incidents for proactive problem solving. ITIL defines a problem as the cause of one or more incidents. The benefits of Problem Management are:

- Higher availability of IT services
- Higher productivity of business and IT staff
- Reduced expenditure on workarounds or fixes that do not work
- Reduction in cost of effort in fire-fighting or resolving repeat incidents.

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Change Management is the process that ensures standardized methods, processes and procedures are used for all changes. This facilitates efficient and prompt handling of all changes and maintains the proper balance between the need for change and the potential detrimental impact of changes. In ITIL, Change Management is responsible for controlling change to all configuration items in the configuration management database, within the live environment, test, and training environments. The benefits of Change Management are:

- Improves efficiency
- Reduces outages and downtime
- Serves as an audit trail for compliance

Configuration Management is the introduction, discovery, identification, tracking, and management of hardware and software assets (CIs), configurations, changes, patches, and new assets. ITIL defines Configuration Management as the management and traceability of every aspect of a configuration from beginning to end, a process that tracks all individual Configuration Items (CI) generated by applying all of the key process areas in a system. The benefits of Configuration Management are:

- Increased control over IT assets through improved visibility and tracking
- Enhanced system reliability through more rapid detection and correction of improper configurations that could negatively impact performance
- The ability to define and enforce formal policies and procedures that govern asset identification, status monitoring, and auditing
- Improved asset maintenance through the ability to better utilize proactive, preventative, and predictive measures

Service Level Management is the definition, capture and measurement of the level of service to the end-user. ITIL describes service level management as the process that provides for continual identification, monitoring and review of the levels of IT services specified in the service level agreements (SLAs). Service Level Management ensures that arrangements are in place with internal IT support-providers and external suppliers in the form of operational level agreements (OLAs) and underpinning contracts (UCs). The benefits of Service Level Management are:

- Setting more accurate service quality expectations and effectively measuring, monitoring and reporting service quality
- Providing the necessary flexibility for business to react quickly to market conditions
- Creating more accurate infrastructure sizing based on clearly defining service levels
- Avoiding or mitigating the costs of excess or insufficient capacity

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How does ITIL work in ServiceWise?

ServiceWise for ITIL includes out-of-box configurations for Incident, Problem, Change, and Configuration management.

Incident Management

This process should be used whenever an issue is reported where there is a loss of service or lack of service. For example, a user that receives an error message when trying to run an application they have never had problems with in the past or a user that cannot access a new web site would each be examples of individual Incidents.

Accurate recording and tracking of these Incidents is important for the following reasons:

1. For future reference by support personnel if the issue occurs again.
2. To determine the ownership and total work performed by the support group and so justify additional resources and training.
3. To identify areas of concern requiring regular effort and warrant additional resources to either correct or mitigate these problems.
4. To provide complete information required for effective problem management.
5. When Service Level Agreements are used, an incident record may be used to track the response and resolve times defined within the SLA.

New

This is the state that a new ticket starts when information regarding the Incident is entered. This is accessible to anyone using ServiceWise.

Available Actions:

Submit

This creates a record within the Incident Management project. Customers will not be permitted to submit Tickets to specific members of EMS Support. This is to ensure that a Ticket is not accidentally assigned to an individual that is not available to work on it.

Level 1

This is the starting point for all tickets after they have been submitted. Tickets are submitted to either a group folder (or queue) which will be accessible to all members of the support group or directly to an individual based on definable auto-routing criteria. The auto-routing feature allows tickets to be directly routed to a subject matter expert based upon the categorization of the ticket.

A support group folder may be the first owner for new tickets and a team member will be responsible for any unassigned tickets in this state. They have the option of either investigating the Incident themselves or forwarding it to a more qualified member of the support team if this would be more efficient.

Before any further actions are taken, the following information regarding the Incident should be entered if it has not been already:

- Incident category
- Urgency (What is the impact to IT service?)
- Priority (How soon does it need to be resolved?)
- Name of the person and/or group that reported the incident

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- Description of the symptoms
- Any troubleshooting activities already performed

The complete categorization of the incident will automatically apply the appropriate Service Level Agreement if the SLA feature is enabled.

This does not preclude other members of the support team from assigning tickets to themselves if they feel that they are able to be of assistance.

Available Actions:

Escalate to Level 2

This action is used when:

- The error is not in the KEDB and has no resolution.
- No procedure documents (What to do if…") or this has been attempted and was unsuccessful in resolving the Incident.
- The support team has investigated the ticket and has been unable to resolve the ticket within the time frame allowed. For example, within 24 hours of the Incident being reported. This escalation may also be done automatically using the Auto-Escalation feature. Auto-Escalations may be done based on time triggers when a ticket is open too long, no progress has been taken, or it is nearing a defined SLA threshold.

Request Change

This action is used when a change to a Configuration Item is required in order to resolve the incident. Performing this action will move the Incident to the "Pending Change" state and create a new Change Request record linked to the original Incident record.

For more information on items that require a change please refer to the section of this document dealing with the Change Management process.

Resolved - Notify Employee

This action is performed when the support team is able to restore service to the customer either using known steps or through investigation and troubleshooting. The support person should verify with the customer that they have resolved the issue prior to using this action.

Resolved - Closed

This action is included to allow for incorrect Incidents to be removed from the list of Tickets and is available to ServiceWise administrators only.

Level 2

An incident in this state has had initial investigation and troubleshooting performed without success. There are no documented processes to resolve the Incident or those processes have been attempted without success. Incidents in this state should be given a higher priority as there has already been an investment of time where there may still be a loss of service.

Usually an incident that is escalated to Level 2 will be assigned to a new individual that is an expert on the related subject matter.

Available Actions:

Request Change

This is performed when the Level 2 support person identifies that a change to a configuration item is necessary to resolve the incident.

Performing this action will automatically move the incident to the "Pending Change" state and create a new change request record in the Change Management Project that is linked to the original Incident.

Report Problem

This action is performed if investigation at Level 2 has failed to provide a course of action that will resolve the incident within a reasonable period of

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time. For example, 48 hours to 1 week after the incident has been created. Based on the incident categorization and priority and the Service Level Agreement applicable these times may vary on a per incident basis.

Performing the "Report Problem" action will move the incident to the "Under Investigation" state and automatically generate a new problem record that is linked to the initial incident record. If the incident is related to an existing problem record (or an existing known error), then the incident may be linked to the problem record so that when the problem is resolved, or a workaround is defined, service can be restored to the customer.

Resolved - Notify Employee

This action is performed when the Level 2 support individual is able to restore service to the customer either using known steps or through investigation and troubleshooting. The support person should verify with the customer that they have resolved the issue prior to using this action. If the investigation and troubleshooting has led to creation of new knowledge articles or How-To information the support member may publish this to the knowledge database.

Resolved - Closed

This action is included to allow for incorrect incidents to be removed from the working list. It is only available to ServiceWise administrators or support supervisors.

Pending Change

Incidents that are in this state are awaiting Change(s) to be completed so that they can be resolved.

Normally, there will be a change request record linked to the incident record if it is in this state. The incident will be moved to another state automatically once the change request has been completed. Before performing any of the actions below, users should check for linked information to determine the current status of any associated change records.

Available Actions:

Change Implemented

This action is performed automatically when a linked change request record is moved to the "Change Complete" state in the change management workflow. Normally, this action will be performed automatically by ServiceWise inter-project status automation settings.

Change Rejected

This is performed automatically when a proposed change request is rejected by the change management team. The incident record is automatically moved back to "Level 2" for further investigation and will include visibility into any of the change management teams comments, notes, or documents to assist the Level 2 technician.

Under investigation

Incidents that do not have a resolution and are the result of a recurring Problem will b placed in this state. The incident will be related to a problem record in the Problem Management Project. Once the problem has been resolved, or a workaround has been identified, the incident will be automatically moved to the "Resolved - Notify Employee" state and the support person responsible for the ticket will be notified.

Available Actions:

Resolved - Notify Employee

This action is taken automatically if a workaround or resolution is found for the associated Problem.

Change complete

Incidents in this state have had required changes implemented and now require attention from the support person responsible for the ticket. This may simply mean contacting the incident submitter to verify that that their issue has been resolved or may involve additional troubleshooting steps to complete required work.

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Available Actions:

Resolved - Notify Employee

This action is performed when the support individual is able to restore service to the customer either using known steps or through investigation and troubleshooting. The support person should verify with the customer that they have resolved the issue prior to using this action.

Resolved - Notify Employee

Incidents in this state indicate that either:

1. The IT Service has been fully restored.
2. The underlying problem causing this ticket has been resolved or a workaround has been discovered.

In the first case, the individual responsible for the incident should contact the customer to verify that the original incident has been resolved.

In the second case, where a workaround has been discovered, further action may be required by the support team to implement the workaround. The support team should verify with the customer that reported the incident to ensure the service has been restored.

When the support person has confirmed that service is restored they should indicate that all work is completed in the work log for the incident.

Available Actions:

Resolved - Closed

This closes the incident and makes the incident record read-only. This action may only be performed by support directors and ServiceWise administrators who should verify that all work, including customer contacts, has been completed before closing the ticket.

Resolved – Closed

Any incidents in this state are read-only by anyone except support supervisors and application administrators. It is expected that the incident has been reviewed by a support supervisor who is satisfied that all required work has been completed.

Available Actions:

Reopen Incident

This is only performed when an incident is deemed to be incomplete or reappears after it is believed to have been resolved. The action can only be performed by support supervisors or ServiceWise administrators.

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Change Management

A change request record should be entered whenever an action could have an effect on the normal operation of the IT environment. For example, adding a new user to the environment, installing a new application on a server, or enabling a new port on a network switch.

You do not need to enter a change request record if you are performing troubleshooting steps to restore normal service in response to an incident. In other words, if you are putting things back to the way they are supposed you are not making a change; you are restoring a service. In these cases make notes on the steps that were taken in the incident record. For example, if a user reports that their individual workstation is frozen and you determine that you must reboot you may do so without entering a change request for this. However, if an application server requires a reboot, then the action of rebooting may have an effect on large user population and requires a change request.

New

This is a preliminary state where the information for the change request is entered. At this point, no change record has actually been created. A new change request will be entered when one of the following actions is performed.

Available Actions:

Submit for Review

This action should be taken for the majority of changes that require the attention of the support team. This includes any updates, additions or removal of hardware, software, user access, processes, agreements, etc. This may include after-hours changes that are performed in response to a call-out.

Urgent RFC

This is to be used for emergency changes that are required to repair a failure (ASAP) in an IT service that has a large negative impact on the business. The Emergency Change Advisory Board (ECAB) should be notified so they are ready to make emergency decisions (see definition of ECAB at the beginning of this document for more information on the ECAB).

This action should only be taken in situations where there is a loss of critical functionality. In most cases this translates to a loss of core systems responsible for providing visibility and control of the electrical grid to the system operators.

Review and Classification

The majority of Changes will be submitted to this state. Once in this state the Change Manager reviews each request and decides on the appropriate next step.

If necessary the Change Manager may forward the change request record to another member of the change management team they feel would be more knowledgeable with regard to the effects of the change, assigning them the role of the Change Manager.

The Change Manager, or Change Advisory Board, should attempt to perform the following steps while reviewing the RFC:

1. Evaluate the change based on the information that has been provided. Is it necessary? Is it reasonable?
2. Verify that the steps to be performed are complete and accurate including updates to the CMDB.
3. Identify the risk(s) to the business. The probability that the risk will occur combined with the impact to the business represent the risk category of the change.
4. Verify that a remediation (recovery or back out) plan has been identified.
5. Determine the priority of the change (low, medium, high, urgent/immediate).
6. chedule the Change

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Available Actions:

Reject Change

This action should be taken if the RFC is illogical, unfeasible, unnecessary, or incomplete. The party that submitted the RFC must be notified along with the reason that the change request has been rejected. If the change request is a duplicate it may be linked to an existing change record.

Note that the party that submitted the change request is always given the opportunity to defend their request and it is possible to resurrect a rejected change at a later date if necessary.

CAB Review

A change request should be sent to the Change Advisory Board for further review if:

- It is not a routine or standard change and no documented process exists for the change.
- The steps to be performed to implement the change are unknown or untested.
- There are risks involved or the impacts of the change are unknown.
- If there is uncertainty as to whether or not further review is required. It is better to request further review than to press forward with the change and have it fail.

A change request record promoted to CAB Review will automatically notify the appropriate individuals that should involved in the change review process.

Implement Change

This action should be selected if:

- This is a standard change with low risk for which a known procedure exists and has been documented.
- The Change Owner (individual responsible for the Change) and Change Manager have identified the change to have a low level of risk and low potential impact on the IT environment should those risks occur.

Examples of this sort of change could be updating a user's security access (with approval), installing a new application or scheduling a new job.

This action is also appropriate during after-hours call-outs from the control center for occasions where it is necessary to perform a change to resolve an incident. As stated above, you should be confident that the change is necessary and that the risks and potential impacts are low before implementing the change. You should also document the troubleshooting steps that are led you to the change in your Incident.

Change Advisory Board (CAB) Review

A Change ticket in this state is currently under review by one or more individuals to:

- Identify the risks to IT services inherent in the change.
- Correctly classify and determine the potential impact to the IT environment.
- Define the steps that are required to implement the change.

A CAB review meeting should be performed periodically by the members of the change management support group. The agenda for this meeting will include:

- Review Proposed RFC's
- Scheduled changes for the upcoming week
- Review incidents encountered over the weekend which may impact upcoming work

Meetings of the CAB can also be requested by the Change Manager or Change Owner in response to high priority

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changes requiring immediate attention, or to appeal a rejected change.

Available Actions:

Approve Change

This action should be taken once a plan has been developed to implement the change with minimal risk.

Review

If a change is of significant scope it may require further review and approval by the IT Steering Committee. Promotion of a change request to this state may only be done by supervisors or change managers.

Reject Change

See available actions for "Review and Classifications" state.

Steering Committee

Changes at this state imply that there could be a fundamental shift in IT infrastructure or significant allocation of resources such that review and input by managers and other stakeholders is required.

Available Actions:

Approve Change

See available actions for CAB Review…

Reject Change

See available actions for "Review and Classifications" state.

RFC Rejected

Changes in this state have been rejected for some reason. Some possible reasons for rejecting a change are if the RFC is illogical, unfeasible, unnecessary or incomplete. The party that submitted the RFC must be notified along with the reason that the change has been rejected.

Note that it is possible to resurrect a rejected change at a later date if necessary and the party who submitted the request is always given the opportunity to defend it.

If the RFC was opened as part of an incident then that incident will be automatically moved to the "Level 2" state within the Incident Management Process workflow so that it can be further dealt with.

Available Actions:

Reopen RFC

This will allow a support supervisor or ServiceWise administrator to send a request for change that was previously rejected for further review.

Scheduled

A change request record in this state has been approved by the Change Manager and work is scheduled to be performed but has not been started yet.

Available Actions:

Implement Change

This action is taken by the Change Owner when they begin to perform the actions outlined in the RFC. This includes al steps including development work, hardware configuration and any other steps that do not have a direct impact on the IT infrastructure.

Implementation

A change that is in this state is currently in the process of being performed. There could be several implementation steps in a single change (indicated by multiple Events). These steps may include notifying interested parties and documenting planned outages in addition to performing the actual required work tasks to complete the change.

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It is also possible that a change is in this state because it is in the process of being rolled back due to work performed that has failed QA testing or did not achieve the desired goal. Checking the history of the change will show you if this is the case.

Available Actions:

QA Testing

After any work has performed that has an effect on IT services testing must be performed to verify that there has been no ill effects to existing services.

QA testing

Changes in this state are actively undergoing testing and review to ensure that the work performed did not cause unforeseen errors or consequences to other services. In short, that any change work tasks performed do not have an impact on the production environment. For example, after operating system patch is installed on a server it is a good idea to check the applications that server is supporting to verify that they are still accessible.

Available Actions:

QA Testing Failed

This action should be performed if it is discovered that IT services have been affected as a result of the work that was done in the Implementation state. This will return your change to the implementation state so that you can then perform the steps necessary to implement your back out plan and restore the IT Service.

Change Review

Use this action once you have confirmed that the steps performed during your change have not resulted in errors being introduced.

Change Review

Several activities are performed in this state. First, a determination should be made as to whether the change produced the desired outcome. Was the problem fixed? Was the desired functionality introduced? If not, this may indicate that more work is required or the change should be rolled back.

All documentation, drawings, lists, etc. should be updated to reflect the work that was done at the implementation state and the newly created knowledge items should be made available.

Finally, a review meeting is held with the support team. During this time the individual(s) responsible for the work performed should report on the status and success of the change to ensure that the support team is aware of the change and are given a final opportunity to make comments or point out additional steps that should be taken (for example, documents or procedures that need to be updated).

Available Actions:

Rollback

This action is performed if it is determined that the change did not have the desired outcome or did not resolve the targeted issue. Even if no noticeable negative effects result from the implementation of a change, it should be rolled back to a known stable state. This action does not require that a review by the support team be completed first.

Change Complete

This action should be performed once all work regarding the change has been completed. This includes, review with the support team and customers, updates to documentation, and updates to the CMDB.

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CAB Emergency Change (EC)

An RFC in this state is required to repair a failure to an IT service that has a large negative impact on the business. From the perspective of our group, this would most likely represent a loss of core functionality or business services.

If the required change requires input or permission from the CAB but the full CAB cannot be assembled the Emergency CAB (ECAB) should be contacted to make emergency decisions.

Available Actions:

Implement Change

Change Completed

A Change in this state is read-only and is available for reference purposes only. All work regarding this Change, whether it was successful or not, is considered to be complete.

If the Change was requested in response to an Incident or a Problem it will be moved to a new state depending on whether or not the Change was successful.

Problem Management

The Problem Management process allows the support team to track sources of recurring incidents that need to be addressed. Investigation is then performed to diagnose the root-cause of the incidents and find a solution. It also helps to ensure that these solutions are implemented via the correct channels; in other words, through the use of the change management process.

A problem record should be created when:

- Support staff suspects or identifies an unknown cause of one or more incidents. This results in a problem registration. It may be immediately clear that an incident was caused by a major problem in which case a new problem record is created.
- Analysis of an incident by a support team member reveals an underlying problem.
- Automatic tracing of an infrastructure or application error in which a tool indicates a need for a problem registration.
- A supplier reports a problem that needs to be resolved.
- Analysis of incidents shows a trend that supports creation of a problem record so that the underlying cause can be investigated further.

New

As with the other workflows, a problem in this state is in the process of being entered. While in this state, the creator of the problem record should enter a full description of the service that is lost, error messages, how to recreate it if possible, and any other relevant information that has been obtained through initial troubleshooting steps. If the problem being created is linked to an incident much of this information may already be available there.

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Available Actions:

Create Problem Ticket

Performing this action will add your problem ticket to the ServiceWise database and begin the problem management workflow.

New Problem

This is the default state for any problems that submitted. Problems in this state are initially assigned to the problem management or second level support group folder instead of an individual. If the individual that originally submitted the problem believes that a particular support team member should be working on this problem then they can forward it to them or assign is using the Classify Problem action.

It is recommended that support team members responsible for development and maintenance review the list of problems in this state regularly and take ownership of any problems that are under their area of responsibility.

Available Actions:

Classify Problem

This action is performed when an individual from the problem management team takes ownership of a problem or assigns it to an individual for further work. This requires that the person performing the action assign an owner.

Classification

At this state, the individual that has been made the owner of the problem record reviews the information entered and determines whether they are the most appropriate person to investigate it. During this process they should categorize the problem according to its source.

In this state, the problem should be given a priority in the same way that incidents and changes are. Similar to incidents and changes, Operational Level Agreements or Service Level Agreements may be assigned automatically based on the classification. Consider the frequency and impact of the related incidents, and how seriously the affect users effectiveness.

Available Actions:

Investigate

This action is performed when the owner of the ticket begins actively investigating it.

Investigation and Analysis

Problems in this state are currently under investigation by the owner of the problem record. The problem may be forwarded to different members in the support team where required until the underlying cause of the problem has been identified.

A problem remains in this state until a workaround or a change is identified to restore the service.

Available Actions:

Known Error - Workaround

This action is performed if a method is identified to restore service to a customer experiencing the associated error, but does not eliminate the possibility of additional Incidents from occurring as a result of the problem. When performing this action, the problem owner must document the workaround steps and publish them for future reference by support individuals.

Request Change

This action should be taken if the problem owner's investigation causes them to identify that a change is required to resolve the problem. This will result in the problem being moved to the Pending Change state and linked to a new change record that is automatically created.

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Pending Change

Problems in this state are awaiting the results of a requested change. The problem should have a change record linked to it where more information can be obtained on the status of the change.

Available Actions:

Known Error

This action is performed if a change is not successful in resolving the problem and moves it into the "Known Error" state.

Change Implemented

This action is performed if a change successfully resolves the problem. Any linked Incidents that were not able to be closed previously should be resolved before the problem.

Known Error

A problem ticket in this state has been defined as a known error that may or may not have a workaround available to resolve Incidents that are caused by the problem.

It is important to note that a problem in this state may still be under investigation, especially if there is no available workaround. However, if there is a workaround available to restore service to customers then the priority of resolving this problem may be low. In this case, it may be decided that the steps required to resolve the problem versus the continuing cost of applying the workaround when necessary may be too great.

If regularly applying the workaround is preferred, then ownership of the problem should be transferred to the support group and left in the known error state. In this way, it is easy to check which problems are currently classified as known error records and are no longer being actively investigated.

Available Actions:

Request Change

This action should be taken if the problem owner's investigation causes them to identify that a change is required to resolve the problem. This will result in the problem being moved to the Pending Change state and linked to a new change record that is automatically created.

Resolved

This action is performed when a problem is resolves through an unrelated action. For example, when a server that regularly drops connections is upgraded because it has reached its end of life, not to resolve the issue where connections are dropped. This action is only available to ServiceWise administrators and support supervisors.

Problem Closed

A problem record in this state has been resolved through some action taken by the support team and is now in a read-only state for reference purposes.

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Definitions

Change

The addition, modification or removal of anything that could have an effect on IT Services.

Change Advisory Board / The Change Advisory Board (CAB)

A group of people that advises the Change Manager in the assessment, prioritization and scheduling of Changes. This board is usually made up of representatives from all areas within the IT Service Provider, the Business, and Third Parties such as Suppliers. A CAB may consist of the following depending on the type of change:

- Change Manager, chairing the process
- Relevant IT services staff
- Suppliers, maintainers and developers
- Customers and Users
- Office services, department managers and non-IT supporting services
- Experts/technical consultants

Change Manager

The individual that is responsible for assessing the risk and impact of a RFC and ensuring that all required information is included before sending to the CAB. If the RFC is approved they are also responsible for approving and scheduling the Change.

Change Owner

The person responsible for performing the work associated with a Request for Change (RFC).

Emergency CAB

A smaller group of individuals and stakeholders that are to be contacted in the event of a serious loss of service to critical IT Services.

Incident

An unplanned interruption to an IT Service or a reduction in the quality of an IT Service. Failure of a Configuration Item that has not yet impacted service is also an Incident; for example failure of one disk from a mirror set. The term Incident is used in the ServiceWise application to identify the primary vehicle for work tracking, this represents a task or a set of tasks that must be managed by the Support Team.

Known Error Database

The Known Error Database contains all Known Error Records and applicable solutions, workarounds and pertinent information. This database is created and maintained by Problem Management and is used by Incident and Problem Management. This consists of "What to do if…" documents and ServiceWise Knowledge articles.

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Known Error Record

A record containing the details of a Known Error. Each Known Error Record documents the lifecycle of a Known Error, including the Status, Root Cause, Workaround and other relevant data.

Problem

The underlying cause of one or more Incidents. The cause is not usually known at the time the Problem record is created and the Problem Management process is responsible for further investigation and determining the root cause which is documented and may be used by change management and incident management teams.

Request for Change

A Request For Change (RFC) is synonymous with a Change Ticket. This represents a proposed Change to the IT environment.

Service

Refers to an IT Service provided to one or more customers by an IT Service Provider. An IT Service is based on the use of Information Technology and support the Customer's Business Processes.

Steering Committee

A group of people made up of management, corporate IT, customers and members of the IT Service Provider(s). This group provides additional direction and assessment on large-scale RFC's which include a fundamental shift in IT Services or infrastructure.

Ticket/Record

An individual Incident, Change or Problem Management record in ServiceWise, usually preceded by the project that it resides in. For example an "Incident Ticket", "Change Ticket" or "Problem Ticket" would be a record in the Incident, Change or Problem Management projects respectively.

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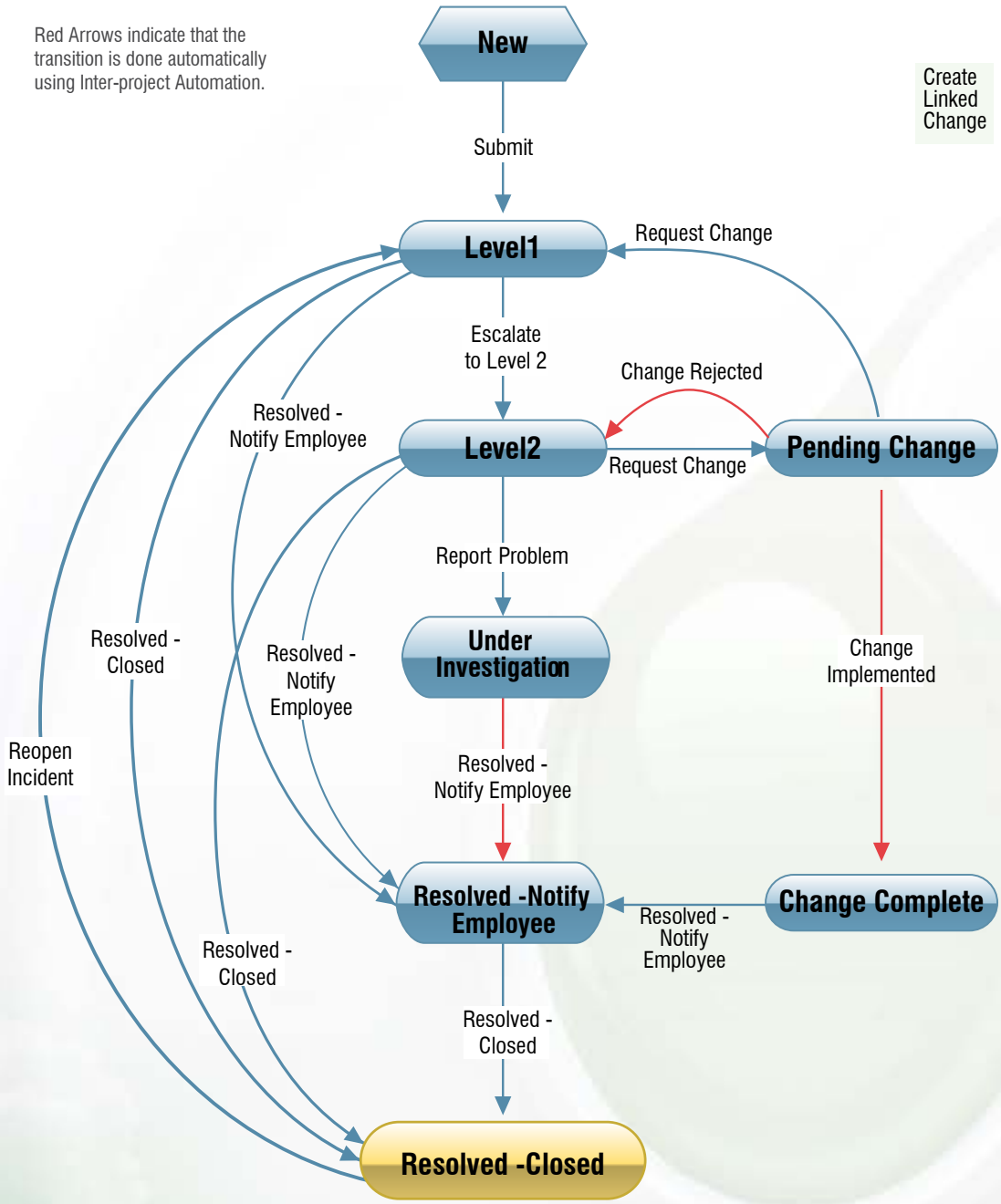
Workflows

Incident Management



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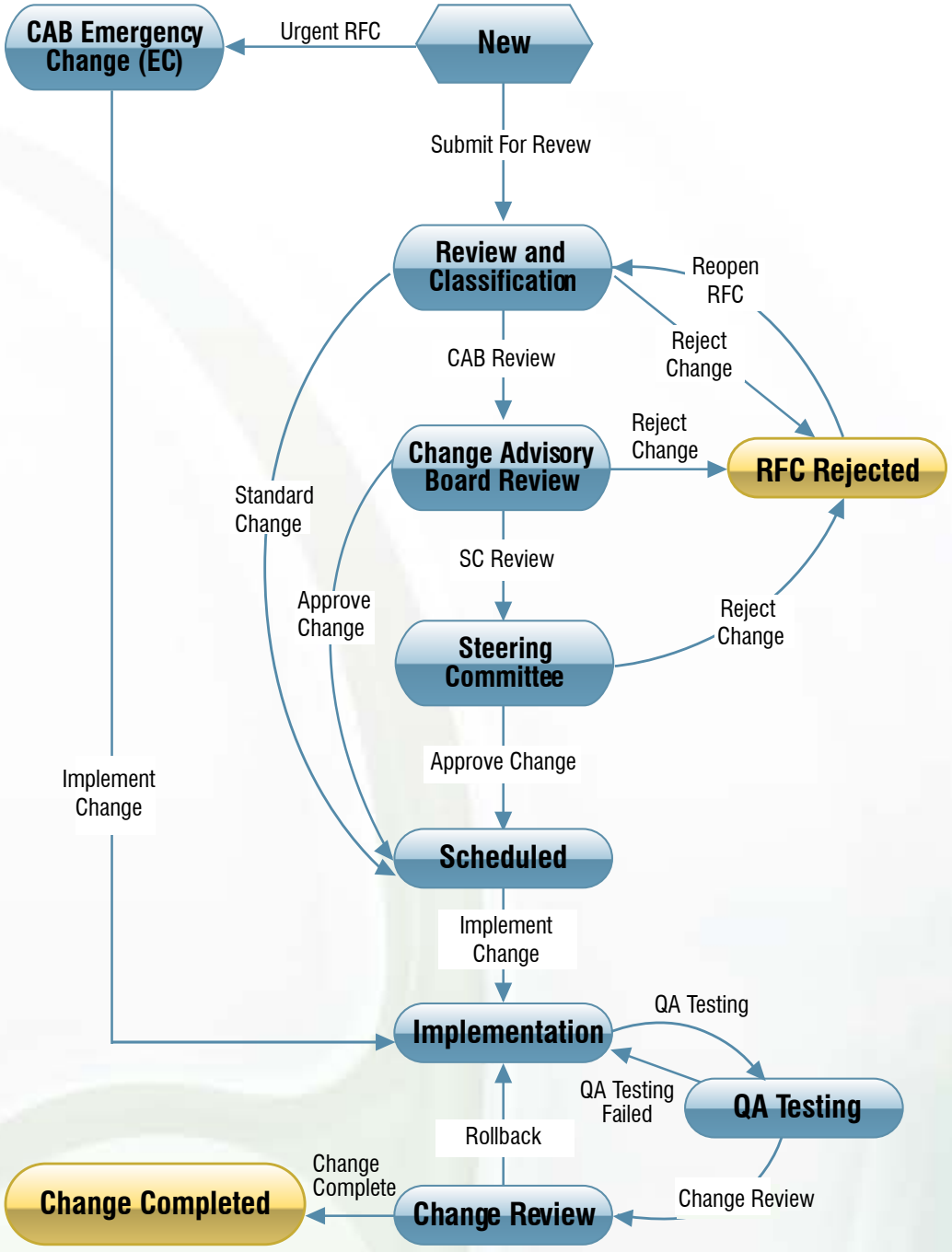
Change Management



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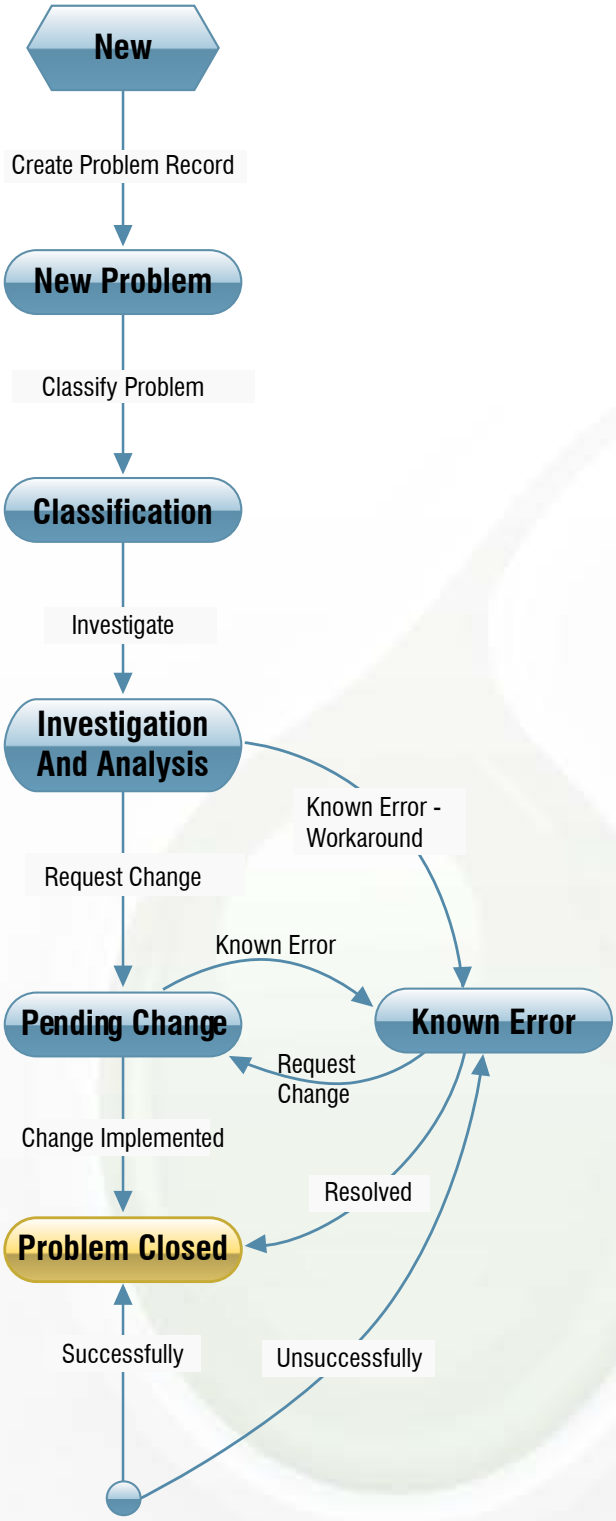
Problem Management



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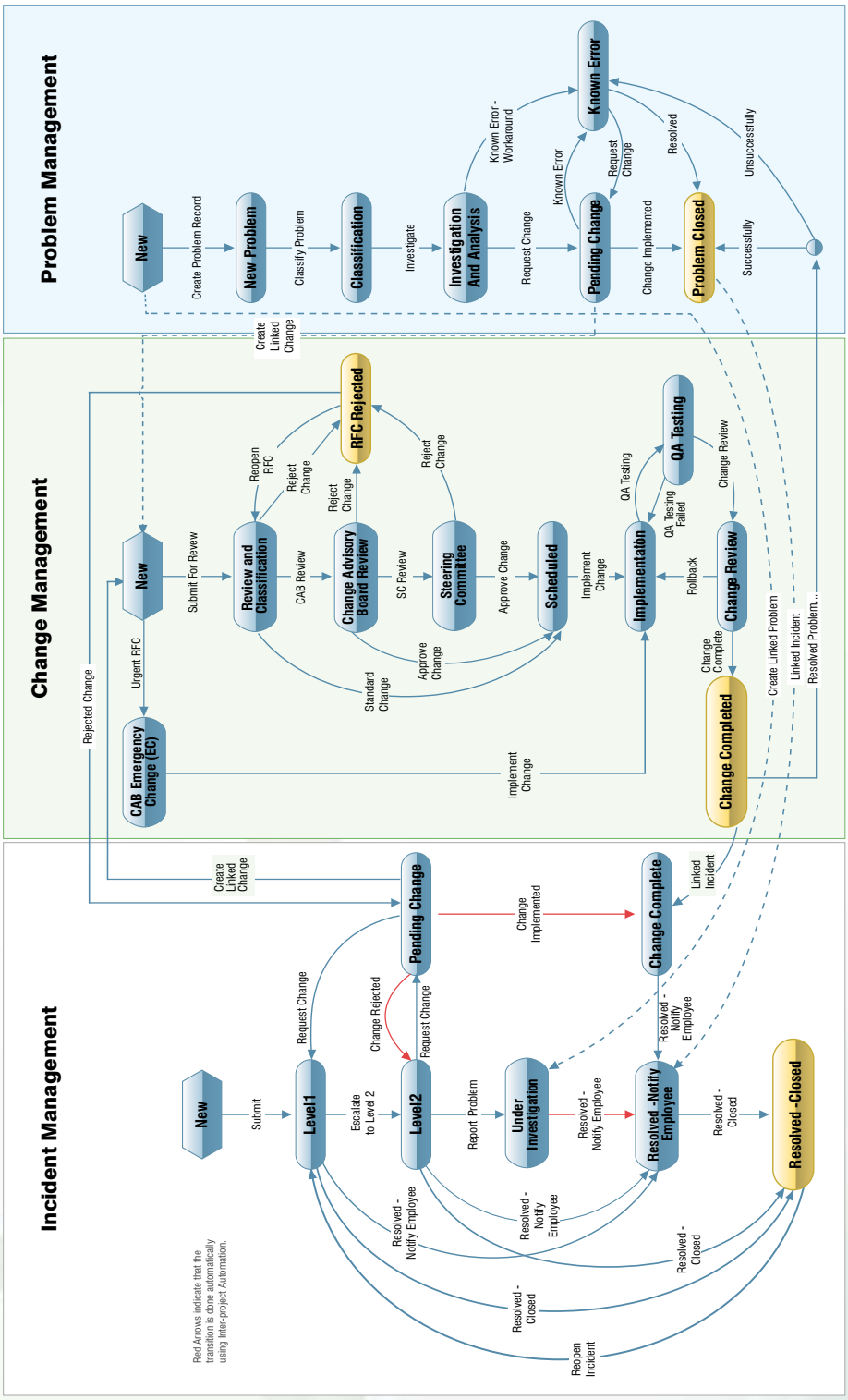
Complete workflow



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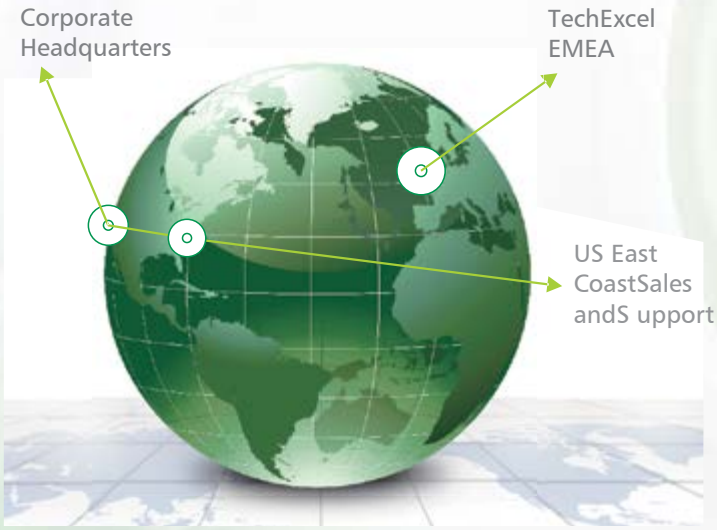

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