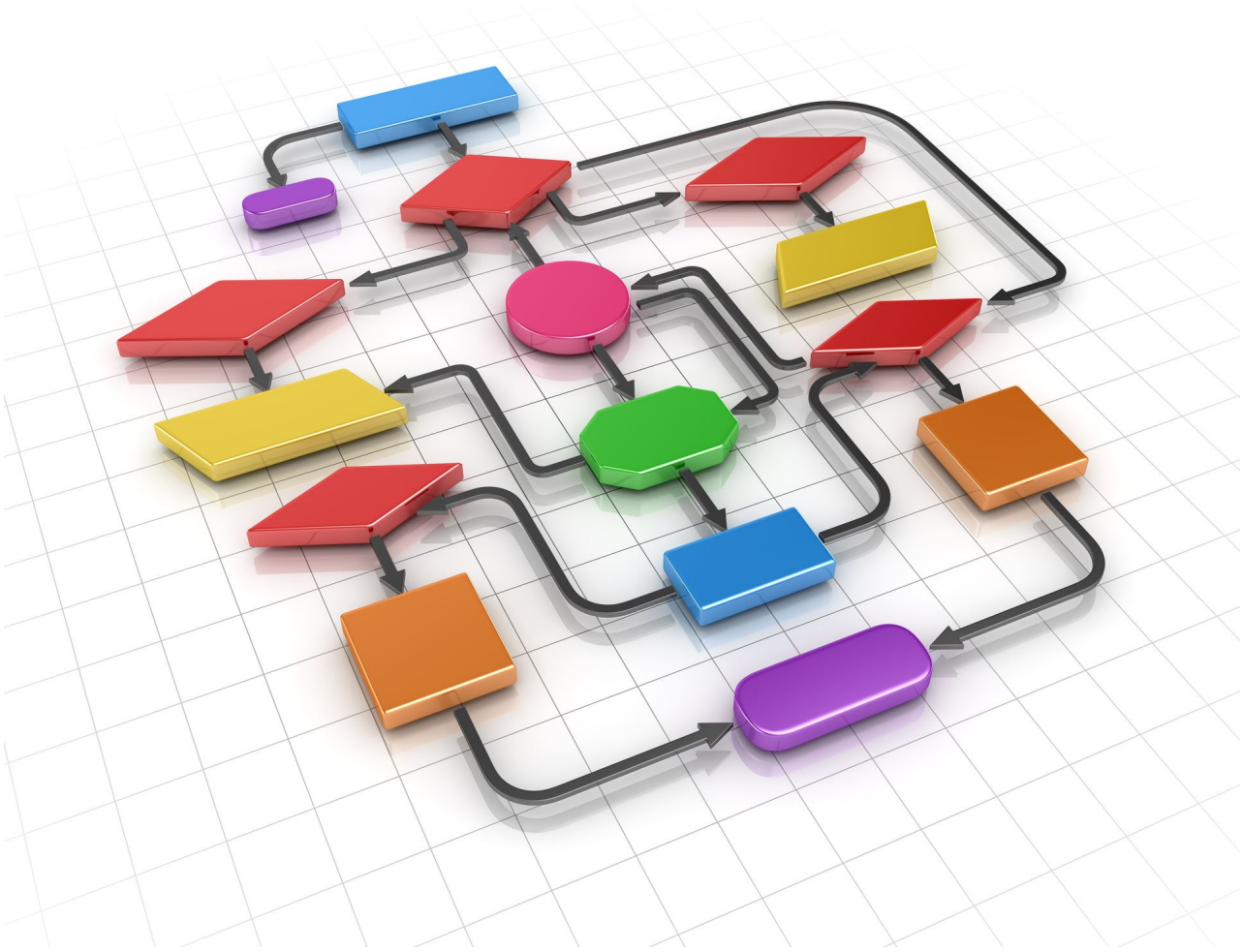
NAVVIA

Access Management



03/07/2021

Table of Contents

Overview

A process is defined as a set of linked activities that transform specified inputs into specified outputs, aimed at accomplishing an agreed-upon goal in a measurable manner.

Description

Access Management is the process that is responsible for granting access rights to authorized users and removing those rights when they are no longer pertinent as per policy. This is done via the Request Fulfillment model, after the user, request and rights have been verified.

This process ensures that access is granted to and retained by only those users authorized and therefore helps to protect the confidentiality and integrity of data.

Information Security Management and Availability Management set the policies and provide guidance. Access Management is the execution of these policies.

The Service Desk provides the central point of contact for the managing, tracking and execution of the requests.

Goal

The process goal describes a specific purpose or achievement toward which the efforts of the process are directed. Each process has a specific focus and when combined with the other processes, forms a comprehensive framework to meet business requirements.

- The Goal of Access Management is to manage and maintain the granting, updating and revoking of access rights to users, ensure that these are rights are only granted to authorized users and that rights remain within the bounds of user statuses and roles as set by policy.

Objectives

Process objectives describe material outcomes that are produced or achieved by the process. The following are the objectives of this process:

- To maintain the confidentiality of information by controlling access.
- To provide the right level of access to authorized users and ensure that as user status and roles change that access levels are kept within the bounds allowed by policy for those statuses and roles.
- To provide the ability to trace the actions of users and to audit their activities.
- To provide the organization with the ability to meet compliance requirements and to verify adherence to regulations with respect in access to information.
- To be able to list all users who have access to information and identify the level of access that they have been granted.

Roles

Roles are allocated to work on specific tasks within the process. The responsibilities of a role are confined to the specific process and do not imply any functional standing within the hierarchy of an organization.

The roles for this process are:

Name	Description
Requestor	The source of the request. This could be a person or a system.
Service Desk Agent	An agent on the Service Desk
Access Management Analyst	The role assigned to evaluate, verify or provide the rights for granting access.
Application Management Analyst	This role is an application specialist that may be consulted on a requested or may provide the rights request for a specific service
Operations Management Analyst	This role is an Operations specialist that may be consulted on a requested or may provide the rights request for a specific service
Access Management Process Manager	The Process Manager is responsible for the operational management of the process. The Process Manager's responsibilities include planning and coordination of all activities required to carry out, monitor and report on the process. Specific responsibilities include: • Managing the day to day activities of the process • Gathering and reporting on process metrics • Tracking compliance to the process • Escalating any issues with the process • Acting as chairperson for process meetings • Identifying deficiencies and developing action plans to address them • Interfacing with managers of other Service Management processes • Acting as the single point of contact for the process • Assigning work to the Analysts There may be several Process Managers for the Access Management process. The Process Manager(s) take direction from the Process Owner in order to ensure consistent execution of the process across all areas of the organization.

Name	Description
Access Management Process Owner	The Process Owner is accountable for the overall quality of the process, ensuring that the process is performed as documented and is meeting its objectives. The Role's responsibilities include sponsorship, design, review and continual improvement of the Process and its Metrics. Specific responsibilities include: • Defining the overall mission of the process • Establishing and communicating the mission, goals and objectives • Resolving any cross-functional (departmental) issues • Ensuring consistent execution of the process across departments • Reporting on the effectiveness of the process to senior management • Initiating any process improvement initiatives The Process Owner should be a Senior Manager with the ability and authority to ensure the process is rolled out and used by all departments within the IT organization.

RA(S)CI

Task	Access Management Analyst	Application Management Analyst	Operations Management Analyst	Requestor	Service Desk Agent
ACC 1.1 Create Access Request				R	R/A
ACC 1.2 Verify Access Request	R/A				
ACC 1.3 Role Conflict Check	R/A	C	C	I	
ACC 1.4 Approve and Assign Request	R/A			I	
ACC 1.5 Provide/Revoke Rights	R/A	C	C		
ACC 1.6 Close Request	R/A			I	

Process Control

Process Controls represent policies and guiding principles on how the process will operate. They provide direction over the operation of the process and define constraints or boundaries within which the process must operate.

Controls

Controls identify what steps need to be in place to ensure the process is being executed as intended.

Name	Description
DS 5.3 Identity Management	Ensure that all users (internal, external and temporary) and their activity on IT systems (business application, IT environment, system operations, development and maintenance) are uniquely identifiable. Enable user identities via authentication mechanisms. Confirm that user access rights to systems and data are in line with defined and documented business needs and that job requirements are attached to user identities. Ensure that user access rights are requested by user management, approved by system owners and implemented by the security-responsible person. Maintain user identities and access rights in a central repository. Deploy cost-effective technical and procedural measures, and keep them current to establish user identification, implement authentication and enforce access rights.
5.4 User Account Management	Address requesting, establishing, issuing, suspending, modifying and closing user accounts and related user privileges with a set of user account management procedures. Include an approval procedure outlining the data or system owner granting the access privileges. These procedures should apply for all users, including administrators (privileged users) and internal and external users, for normal and emergency cases. Rights and obligations relative to access to enterprise systems and information should be contractually arranged for all types of users. Perform regular management review of all accounts and related privileges.
PC1.0 Process Goals and Objectives	Define and communicate specific, measurable, actionable, realistic, results-oriented and timely (SMARRT) process goals and objectives for the effective execution of each IT process. Ensure that they are linked to the business goals and supported by suitable metrics.
PC2.0 Process Ownership	Assign an owner for each IT process, and clearly define the roles and responsibilities of the process owner. Include, for example, responsibility for process design, interaction with other processes, accountability for the end results, measurement of process performance and the identification of improvement opportunities.
PC3.0 Process Repeatability	Design and establish each key IT process such that it is repeatable and consistently produces the expected results. Provide for a logical but flexible and scalable sequence of activities that will lead to the desired results and is agile enough to deal with exceptions and emergencies. Use consistent processes, where possible, and tailor only when unavoidable.
PC4.0 Roles and Responsibilities	Define the key activities and end deliverables of the process. Assign and communicate unambiguous roles and responsibilities for effective and efficient execution of the key activities and their documentation as well as accountability for the process end deliverables.
PC5.0 Policy, Plans and Procedures	Define and communicate how all policies, plans and procedures that drive an IT process are documented, reviewed, maintained, approved, stored, communicated and used for training. Assign responsibilities for each of these activities and, at appropriate times, review whether they are executed correctly. Ensure that the policies, plans and procedures are accessible, correct, understood and up to date.
PC6.0 Process Performance Improvement	Identify a set of metrics that provides insight into the outcomes and performance of the process. Establish targets that reflect on the process goals and the performance drivers that enable the achievement of process goals. Define how the data are to be obtained. Compare actual measurement to the target and take action upon deviations, where necessary. Align metrics, targets and methods with IT's overall performance monitoring approach.
PO8.5 Continuous improvement	Maintain and regularly communicate an overall quality plan that promotes continuous improvement.

Policies

Policies provide an element of governance for the process that provides alignment to business vision, mission and goals. They outline a set of plans or courses of action that are intended to influence and determine decisions or actions within the process.

Here are the relevant policies for this process:

Security Policy

Statement:	All Access rights must conform to the Information Security Policies of the organization.
Rationale:	All access rights and users must adhere to the corporate and IS Information Management Security Policies
Exceptions:	None

Users and user activity must be uniquely identifiable

Statement:	All Users must have a unique account and their activity on all IT Systems must be uniquely identifiable.
Rationale:	In order proper assign and to enforce user access, each user must have an unique user account and all access activity must be monitored and tracked at the user account level
Value:	This policy will enable the accurate reporting and monitoring all access activity on IT Systems.

User Access

Statement:	User access rights shall be assigned based on business needs and job requirements, confirmed and approved by the system owner.
Rationale:	Users must be granted the correct authorizations to perform there tasks and care must be taken to ensure that they are grant only the correct privileges and rights. Authorizations must be approved and verified by the system owner.

Central Repository for User Identities and Access Rights

Statement:	User Identities and Access Rights will be maintained in a central repository that is secure and available. Procedures and measures must be established to ensure they are accurate and current.
Rationale:	User Identities and Access Rights must be current and available to establish user identification, implement authentication and enforce access rights.

Security Testing, Surveillance and Monitoring

Statement:	Security Testing, Surveillance and Monitoring must be performed in in timely manner to ensure that all access is authorized.
Rationale:	The enforcement and verification of authorized access required vigilance and verification. A logging and monitoring function will enable the early prevention and/or detection and subsequent timely reporting of unusual and/or abnormal activities that may need to be addressed.

test

Workflow

The Workflow section identifies the process inputs, outputs, activities and task details along with the general task flow within each activity.

Inputs

Process inputs are used as triggers to initiate the process or activities within the process. Inputs that are not triggers may contain information necessary to produce the desired outputs. Inputs are provided by Users, stakeholders or processes.

The following are the main inputs to this process:

Name	Description	Supplier	Is Trigger	Task
Access Request	The submission of a request to grant access to a user.	Manager or Service Manager	True	
RFC - Request For Change	When the requirement is due to an upgrade or a new service implementation and there is a large volume of access requests, an RFC or Request For Change maybe used to trigger the process.	Change Management	True	
Human Resources Request	A change in the status of an individual may require change(s) to their access rights. All changes in status should result in an automated Human Resource Request being submitted to Access Management so that at least any rights not compatible with the new status can be removed, temporarily frozen or be put under more restrictive limits as applicable. Status changes can include: * Role or job changes * Promotions (or demotions) within the same job or role * Moves or transfers to different geographical or other structure * Dismissals, resignations, retirements, leave of absences and deaths * Suspensions and other disciplinary states In some cases additional rights may be automatically granted because of a status change. In other cases, individual requests separate from the Human Resource Request may be required. Information Security Policy will specify.	HR System	True	
Information Security Policy and supporting details	Elements of this specify the allowable relationships between user statuses (including roles), the allowable combination of service rights against these statuses and the requirements for the requesting of changes to rights and the controls and audit trails on both the requesting, granting and audit trail of changes and the control and auditing of the use of those rights.	Information Security Management	False	

Outputs

A process must produce tangible outputs. These outputs may take the form of physical products or data and can be delivered to a user or stakeholder. They may also be inputs to other processes or even to tasks within this process.

The following are the main outputs of this process:

Name	Description	Customer	Task
Access Rights	The granting, modifying and revoking of rights that result in changes to the access for a user.	User	
Access Profiles	Rather than keeping stand-alone records, it is preferable that Access Management treats Identities, Rights and various Group records as CI's and maintains these items, their attributes and relationships in the Configuration Management System (CMS). Information Security Management will specify the access restrictions on these types of CI's.	Configuration Management	

Activities

An activity is a collection of tasks that are related to each other. An activity may also be constructed to support a specific objective of the process.

Activity Summary

These are the activities for this process:

Activity	Name	Description
1	Access Request	The purpose of this activity is to manage, track and execute the request for access. The request can be to provide, revoke or modify the rights currently granted to a user. The requests submission can be manual, a manager or user can make a call to the Service Desk or submit the request via a Service Request. Automated request submissions can come from a HR System feed in response to changes in an employee's status with the organization. Request submissions may also come from Change Management in the form or tasks from an RFC. Access Requests are managed and tracked in a Request Fulfillment model created specifically for Access Management. Requests are fulfilled using Access Management tools and procedures that have approved by Security Management policies. All requests must be verified to ensure that both user and the requestor are valid and authorized for the rights being requested.

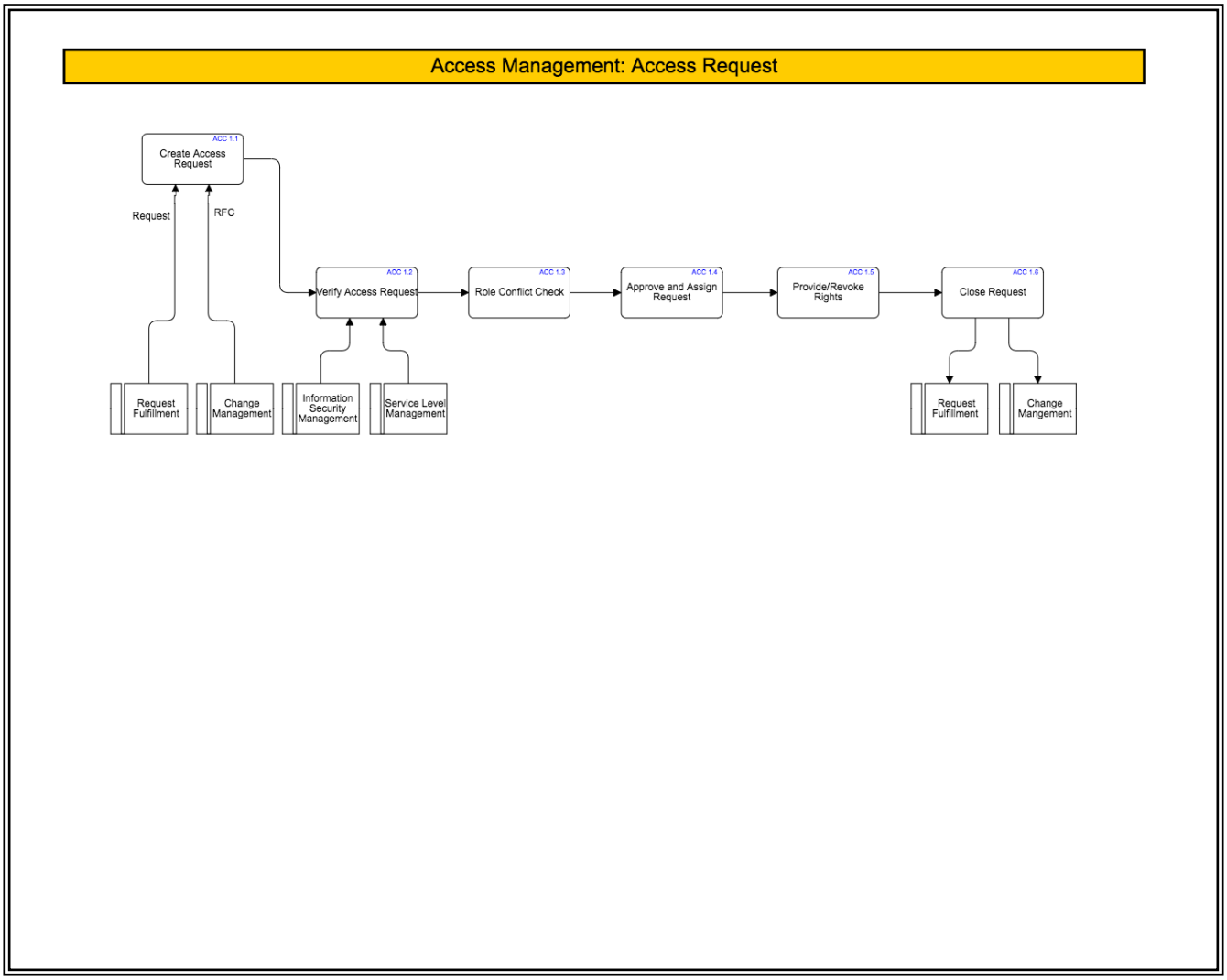
Access Request

The purpose of this activity is to manage, track and execute the request for access. The request can be to provide, revoke or modify the rights currently granted to a user. The requests submission can be manual, a manager or user can make a call to the Service Desk or submit the request via a Service Request. Automated request submissions can come from a HR System feed in response to changes in an employee's status with the organization. Request submissions may also come from Change Management in the form or tasks from an RFC.

Access Requests are managed and tracked in a Request Fulfillment model created specifically for Access Management. Requests are fulfilled using Access Management tools and procedures that have approved by Security Management policies.

All requests must be verified to ensure that both user and the requestor are valid and authorized for the rights being requested.

Cross-Functional Flow Diagram



Tasks

ACC 1.1: Create Access Request

The Access Request is nominally created by the Service Desk Agent, in response to a request made, manually or automatically, for the granting, revoking or modifying of rights to a user or users.

The request may be in the form of Service Request, a Change Request or an automated Human Resource Request from the HR service or system.

In many cases, the translation into an Access Request may be handled by automation.

Where human intervention is required, the request processing should optimally be directed to specialized Service Desk personnel unless the activity is straight forward.

The purpose of this task to collect all the required information and properly complete the request so that it can be processed effectively and efficiently.

ACC 1.2: Verify Access Request

The purpose of this task is to verify the access request. There are 2 items that must be verified. First, the user that will be recipient of the request must be verified to ensure that they are an authorized user. Second, the request must be verified to ensure that it is valid and that it came from an authorized source. The identity of the user named in the request must be verified in the HR records for internal access and the customer or supplier database if the request is for external access, unless this is available from the CMDB.

The verification of the authenticity of the request must come from a source other then the requestor. This independent verification must ensure the requestor has the authority to make this request.

If the request cannot be verified, the request is rejected and the requestor notified.

All or parts of this activity may be handled by automation.

ACC 1.3: Role Conflict Check

The rights requested in the request must be checked to ensure that they do not violate policy and that they do not conflict with other rights granted to the user. For example a user may be assigned to several roles or groups of roles. These roles must be checked to ensure that they do not grant the user access to rights that conflict with compliance regulations or provide too much authority for this user.

Any conflicts must be reported to the designated Application or Technology Support team for resolution. If the conflict cannot be resolved, the request is rejected and the requestor notified.

All or part of this activity may be handled by automation.

ACC 1.4: Approve and Assign Request

After the request has been verified and checked for conflicts, the request is approved and assigned to the correct Operation or Technical Management so that the proper rights can be assigned to the designated user.

If the request cannot be approved, the request is rejected and the requestor notified.

This activity may he handled by automation in some cases

ACC 1.5: Provide/Revoke Rights

The team (or automation) assigned the request will now make the required changes to the rights as detailed in the request. There is no more verification of the request, but the success or failure of the execution of the request must be captured and relayed back to the requestor and recorded in the request ticket.

ACC 1.6: Close Request

Upon completion, the request is closed and the requestor notified of the status of the request.

Appendix

Additional documents or information that are related to the process in some manner

Definitions

Definitions for unique terms related to the process that may aid in the understanding of the process and its documentation

Term	Definition
Access	The scope of capability and level of functionality within a service that a user is able to employ
Identity	The information about an individual that distinguishes them from all other individuals and which describes their role(s) and status(es) within the organization. The identity of the individual is unique to that individual. The term "user" should be considered equated with "individual" in this context. Initial identification of an individual typically requires multiple pieces of information such as Name, address, other contact information, identification document (passport, driver's license, etc.), identification number (e.g., employee number SSN), biometric data (e.g., DNA profile, thumb print, retinal pattern, voice pattern, etc.). Identities needs to be defined for various parties who require access to services and data including employees, contractors, vendor personnel, customers and representatives of various regulatory and investigative bodies. Once an individual's identification has been initially confirmed they are normally issued (or may self-issue) a unique identifier within the organization (a userid) and are issued (and/or self issue) a password. Subsequent confirmation of identity when attempting to access services will usually be a combination of factors commensurate with the security levels required for that service or the data to be accessed.
Rights	The actual parameter settings that provide a type of access for an individual for a service or data components within a service. "Privileges" should be considered a synonym of "Rights".
Groups	While each user and each service can be treated as an individual, for administrative purposes, users and services are usually grouped. There can be User groups, Roles, Service groups, etc. The most common maps between these can be set up as "profiles" with any unique requirements applied for seperately. Access Management will maintain a catalog of these profiles (usually in conjunction with HR) to simplify the requesting and removal of access.

Term	Definition
Access Management	The process of permitting authorized individuals to use components of a service and preventing non-authorized individuals from so doing. Synonyms are "Identity Management" and "Rights Management" It handles some of the operational aspects of both Information Security and Availability Management. From an Availability Management point of view, Access Management ensures authorized users to have the right of access to services but has nothing to do with ensuring that those services are available to them. From an Information Security Management point of view, Access Management ensures that Information Security access policies are applied thoroughly, consistently and in a timely manner through service, organizational, customer, supplier and user changes, but plays only a supporting role in the detection of unauthorized access and the subsequent damage containment and recovery which remains within the responsibility of Information Security Management.
RACI Model	The RACI Model is based on the principle that people act in one of four ways when executing a task. It accounts for the fact that more than one role may be active in performing a specific task while clearly defining specific responsibilities for that role. While many roles may be involved in a task only one is Accountable for the results. The actions are: R Responsible for the action (may do the task) A Accountable for the action (including approval) C Required to be Consulted on the action I Required to be Informed of the action If a task does not have an Accountable role indicated then the Responsible role is assumed to be accountable for the task.