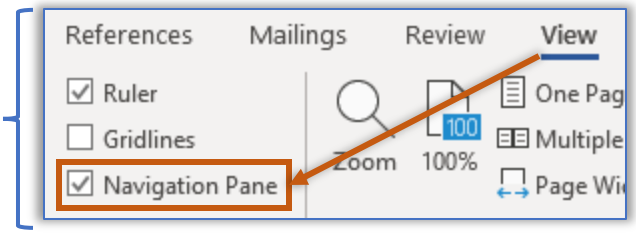
MaestroRS - Disaster Recovery Project:

CBT Analysis and Design

Table of Contents

Navigate to anywhere, from anywhere, in this document by selecting **Navigation Pane** in the *View* ribbon. The *Navigation* panel opens on the left displaying links to all sections in the document.



Purpose

ServiceNow is adding MaestroRS to its environment to allow for better disaster recovery planning, mitigation, and response regarding XXXXX's technical environment. This includes storage facilities, data, and hardware. This application is new to XXXXX users and requires training and post-launch support.

This document addresses the computer-based training (CBT) aspect of the plan. This training is in concert with instructor-led training (ILT), any resulting guides (quick reference and user), and any follow-up user support.

Scope

The scope of this project is limited to CBTs and any related references. It focuses on MaestroRS for the roles defined and their tasks. It does not cover ServiceNow tasks unless it is required to complete a task in MaestroRS. The CBTs are assigned modules in Learning Central and reference materials available in SharePoint.

It does not include instructor-led training.

Subject Matter Experts / Approval

Subject Matter Experts (SME):

- Joe LaBella (SN)
- SME MaestroRS – TBD
- Matt Dizigan (PM, overall)
- Muhammad Ansari (LTI)

Key Stakeholders:

- Greg Yatrousis (sponsor)
- Hyatt Hollman (product owner)

Approvers:

- Analysis & Design:
- Storyboard: Joe LaBella
- Alpha: Greg Yatrousis
- Beta:
- Gold:

Sign-Off Authority:

- Analysis & Design:
- Storyboard: Joe LaBella
- Alpha: Greg Yatrousis
- Beta:
- Gold:

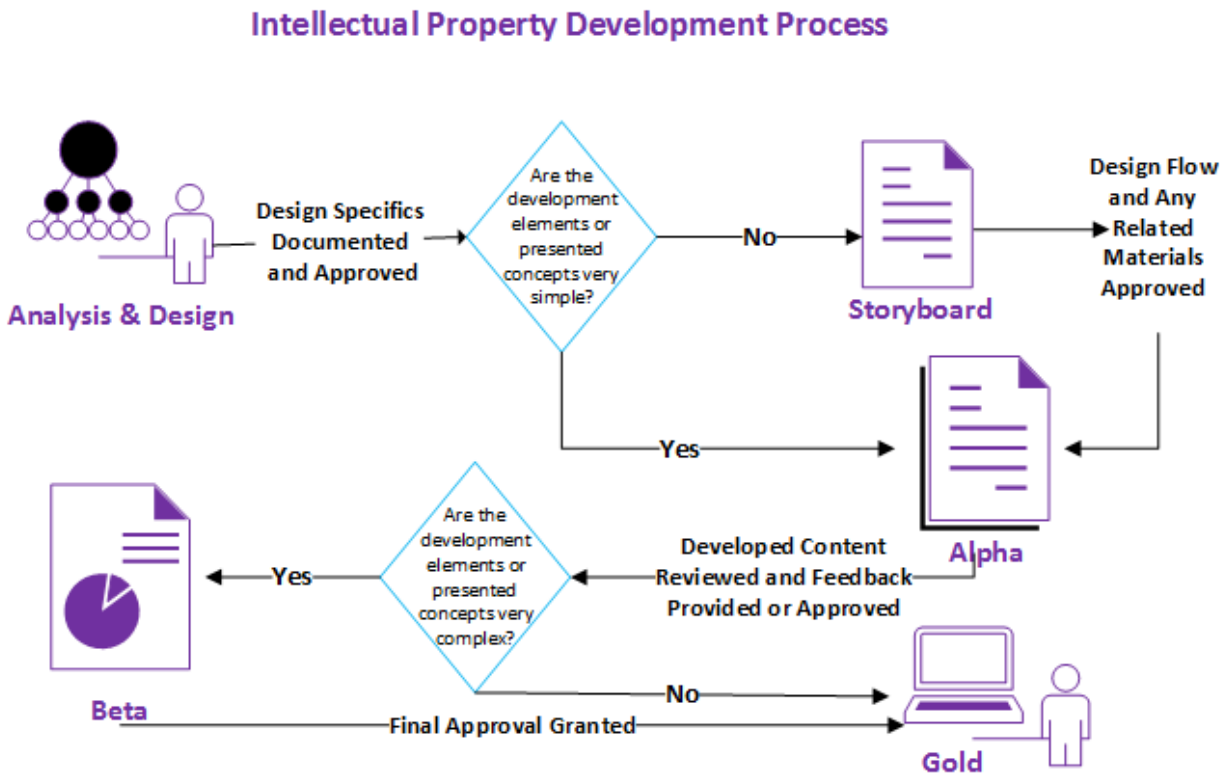
Communication Plan

This communication plan is designed to keep all parties informed of the project status and request approvals, as needed. It is expected that all communications go through email.

Purpose	Audience	Frequency
Notify of CBT deliverable ready for review (A&D doc, storyboard, alpha, beta, gold)	SMEs, as needed	Stage completion
Notify of CBT deliverable ready for approval (A&D doc, storyboard, alpha, beta, gold)	Approvers, as appropriate	SME signoff – each stage
Notice of Gold publication (in LMS and SharePoint)	All involved stakeholders	At Gold approval and publication

Development Process

The following image depicts the CBT development process. Narration is recorded for the *Beta* stage. The script requires scrutiny when presented in *Alpha* to eliminate audio pickups.

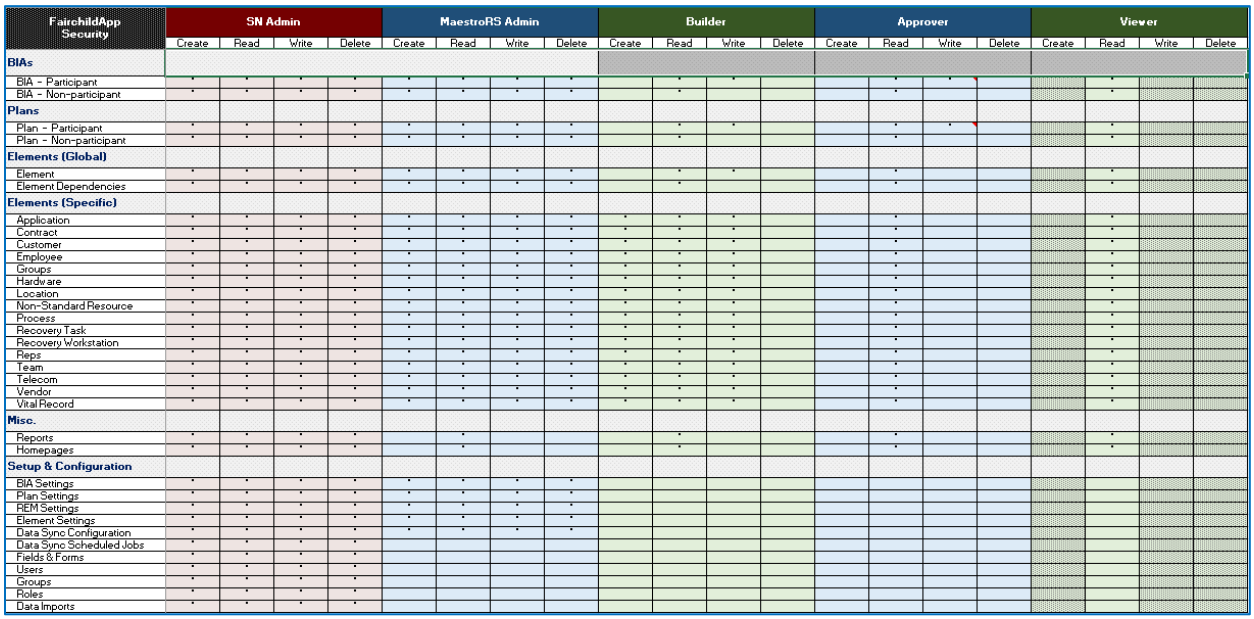


Audience

Audiences are role based:

- Everyone (training includes all needed training for *View Only* group)
- SN Admin & MaestroRS Admin (tasks performed by both)
- SN Admin – Only (topics not addressed for MaestroRS Admin)
- Builder – Specific (creates run books and applications)
- Approver – Specific (Director level approval) *QRG Only*

MaestroRS Security Matrix



FairchildApp Security	SN Admin				MaestroRS Admin				Builder				Approver				Viewer			
	Create	Read	Write	Delete	Create	Read	Write	Delete	Create	Read	Write	Delete	Create	Read	Write	Delete	Create	Read	Write	Delete
BIAs																				
BIA - Participant	•	•	•	•	•	•	•	•		•	•			•	•			•		
BIA - Non-participant	•	•	•	•	•	•	•	•		•	•			•				•		
Plans																				
Plan - Participant	•	•	•	•	•	•	•	•		•	•			•	•			•		
Plan - Non-participant	•	•	•	•	•	•	•	•		•				•				•		
Elements (Global)																				
Element	•	•	•	•	•	•	•	•		•	•			•				•		
Element Dependencies	•	•	•	•	•	•	•	•		•				•				•		
Elements (Specific)																				
Application	•	•	•	•	•	•	•	•	•	•	•			•				•		
Contract	•	•	•	•	•	•	•	•	•	•	•			•				•		
Customer	•	•	•	•	•	•	•	•	•	•	•			•				•		
Employee	•	•	•	•	•	•	•	•	•	•	•			•				•		
Groups	•	•	•	•	•	•	•	•	•	•	•			•				•		
Hardware	•	•	•	•	•	•	•	•	•	•	•			•				•		
Location	•	•	•	•	•	•	•	•	•	•	•			•				•		
Non-Standard Resource	•	•	•	•	•	•	•	•	•	•	•			•				•		
Process	•	•	•	•	•	•	•	•	•	•	•			•				•		
Recovery Task	•	•	•	•	•	•	•	•	•	•	•			•				•		
Recovery Workstation	•	•	•	•	•	•	•	•	•	•	•			•				•		
Reps	•	•	•	•	•	•	•	•	•	•	•			•				•		
Team	•	•	•	•	•	•	•	•	•	•	•			•				•		
Telecom	•	•	•	•	•	•	•	•	•	•	•			•				•		
Vendor	•	•	•	•	•	•	•	•	•	•	•			•				•		
Vital Record	•	•	•	•	•	•	•	•	•	•	•			•				•		
Misc.																				
Reports	•	•	•	•		•				•				•				•		
Homepages	•	•	•	•		•				•				•				•		
Setup & Configuration																				
BIA Settings	•	•	•	•	•	•	•	•												
Plan Settings	•	•	•	•	•	•	•	•												
REM Settings	•	•	•	•	•	•	•	•												
Element Settings	•	•	•	•	•	•	•	•												
Data Sync Configuration	•	•	•	•	•	•	•	•												
Data Sync Scheduled Jobs	•	•	•	•																
Fields & Forms	•	•	•	•																
Users	•	•	•	•																
Groups	•	•	•	•																
Roles	•	•	•	•																
Data Imports	•	•	•	•																

Assumptions

- Users are familiar with the general user interface, since it mirrors ServiceNow
- Users are all new to the MaestroRS interface and processes
- Users are expected to have limited resistance to acceptance or training
- Users are required to participate in ILT
- Users are required to complete specific CBTs as per assigned in Learning Central
- Some users have experience with tabletop exercises but level of experience with full drills and/or Incident Command are not known
- Not all users have headphones, or privacy, to listen to narrated modules, so screen tips and CC is included

Assessment Strategy

The assessment strategy is remedial only. Each module includes a short set of questions. Each question provides immediate feedback. Either *Correct*, or *Not Quite Try Again*, and given the answer after the second try.

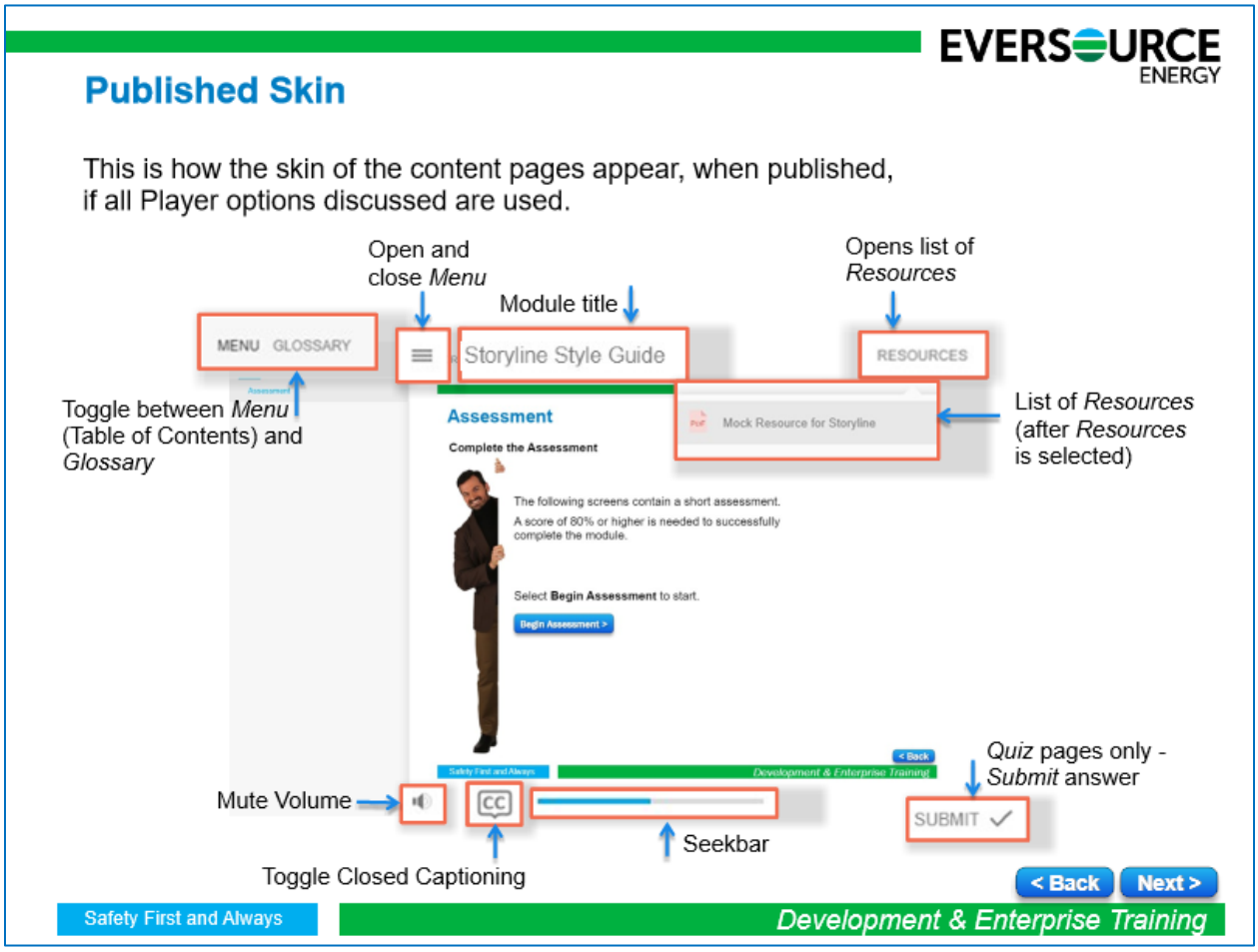
No knowledge checks, within the content flow, are expected at this time. These questions are needed to fully define how the modules are presented (see *Module Design* below).

- Users do not need to pass an assessment to complete a module or access the system
- Users receive immediate feedback on each assessment question
- Modules, of 40 minutes or less, are accessed through Learning Central, published in SCORM and/or AICC

  Modules, combining any LMS modules, published and stored, so a page in SharePoint can link to them as references, along with any resulting QRGs (site administered by Rachel Ives): Need to determine how to present published storyline materials in SharePoint – Likely link into Learning Central since the single sign on makes a seamless path to them https://XXXXXenergy.sharepoint.com/sites/ProjectOCM/SitePages/ITConnect.aspx?web=1

Module Design

The modules, created using Storyline, combine text, narration, and motion capture to explain and demonstrate the tasks performed in MaestroRS. They follow the user interface defined in the *Storyline Style Guide* and associated templates.



There are *two locations/purposes* for content presentation:

1. Learning Central: Smaller modules, each for one role / one major topic (*less than 40 minutes* in length) – assigned and accessed through *Learning Central*
2. SharePoint: Learning modules, published to *Learning Central*, are combined into a larger version, as logically grouped per role and use the *Table of Contents* to link to the different topics – each link renders the separate module as a separate *chapter*

   Need to determine how to present published storyline materials in SharePoint – Likely link into Learning Central since the single sign on makes a seamless path to them

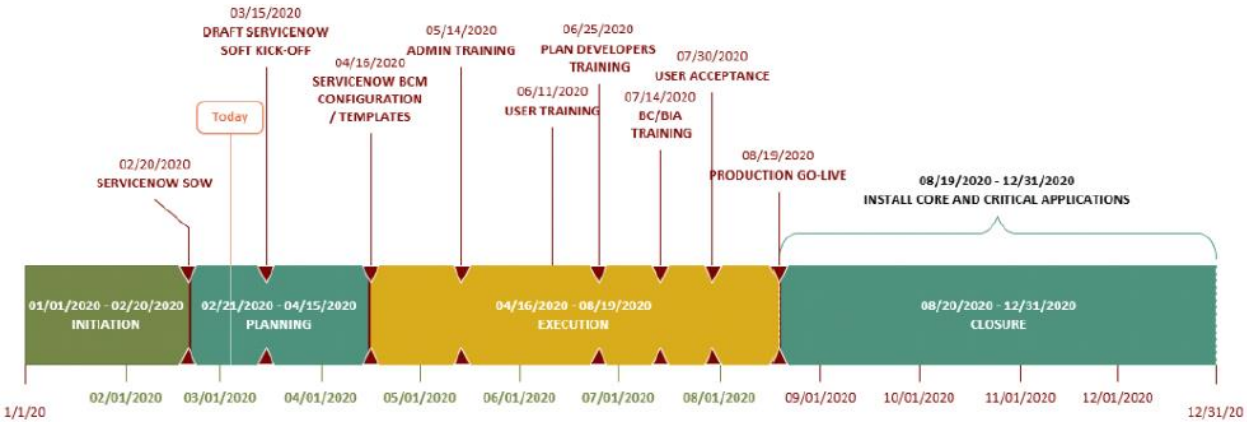
CBT Development Schedule

The CBT development schedule:

- CBT design and development begins after gaining access to the MaestroRS sandbox and receiving *Train-the-Trainer Facilitation Guides* or attending the training.
    - Start SN and MaestroRS Admin modules – 5/14/20 (8 modules)
    - Start Builder modules – 6/25/20 (2 modules)
    - Start Approver – 5/14/20 (QRG)
    - Start Meet Maestro - 5/14/20 (1 module)

The *vendor-driven* schedule depicts *Train-the-Trainer* dates:

- Vendor-driven Admin Training - mid May
- Vendor-driven Plan Developer training – late June
- Vendor-driven BC/NIA training - mid July



Preliminary Module and Topic Recommendations

All Roles

1. *Meet MaestroRS*
   General Intro to MaestroRS and Connection to Service Now
   All roles required to complete a general information module. This is the only required module for Viewers.
   - Logging in (MaestroRS Sample Orientation – p6)
   - Basic Navigation (MaestroRS Sample Orientation – p6)
   - Define and Locate:
     - Plans
     - Elements (Global and Specific)
     - Reports
     - Homepages

SN Admin and MaestroRS Admin

1. *Create a New Plan*
   - Locating, Creating, Editing, Deleting
2. *Create a Plan from an Existing Plan*
   - Creating a plan from an existing one by duplicating it
3. *Manage Elements*
   - Locating, Creating, Editing, Deleting
     - Setup and Configure
4. *Setup & Configuration - Managing Data Sync*
   - Locating, Creating, Editing, Deleting
     - REM Settings
     - Data Sync Configuration
5. *Recovery and Exercise Management (REM)*
   - Developing and tracking live exercises
   - Incident Command roles and forms (ICS_Forms_508_12-7-10.pdf)
6. Threat Assessment
   - Overview
   - Security

SN Admin Only

1. *Manage Reports*
   - Locating, Creating, Editing, Deleting
2. *Manage Homepages*
   - Locating, Creating, Editing, Deleting
3. *Complete Additional Setup and Configuration*
   - Miscellaneous:
     - Data Sync Scheduled Jobs
     - Fields & Forms
     - Users

- Groups
- Roles

Builder – Specific

1. *Working with Plans*
    - Locating, Writing, Editing
2. *Working with Elements*
    - Locating, Creating, Editing
3. *Create a Plan from an Existing Plan*
    - Creating a plan from an existing one by duplicating it

Approver – Specific

Approvals are shown on one screen and represent the approvals the logged in user needs to track and approve. The screen is the home screen and the approval of all elements can be accomplished in one module. Due to the simplicity, only a Quick Reference Guide (QRG) is required.

View Only

N/A – only *Meet Maestro*

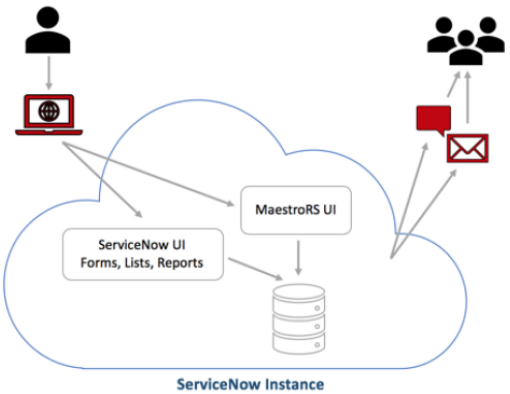
Preliminary Module Outline Recommendations

All Roles

Meet MaestroRS

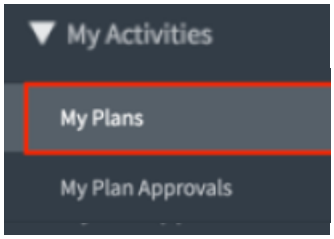
General Intro to MaestroRS and Connection to ServiceNow
All roles required to complete a general information module. This is the only required module for *Viewer Only* users. Include a document explaining the different roles and each access level.

- Introduction
  - Reason for implementing MaestroRS
    - MaestroRS is a software product that supports the activities associated with Business Continuity Programs (BCPs). MaestroRS facilitates the creation and maintenance of all types of response and recovery plans, and the exercise and live management of crises. The software is built on the ServiceNow platform and is delivered through a PaaS (Platform as a Service) model.
  - MaestroRS components included in the ServiceNow platform:
    - Data stored in ServiceNow platform Database
      - MaestroRS specific Tables
      - Core platform Tables
    - ServiceNow User Interface (UI)
      - Includes a Navigational Menu, lists to view data on multiple records, and Forms to view data on a specific record
    - MaestroRS User Interface (UI)
      - Provides additional capabilities and features for viewing and updating data beyond the capabilities included in the native ServiceNow UI
      - MaestroRS UI runs within the ServiceNow platform
    - ServiceNow Reporting
    - ServiceNow Notifications
  - Leveraging ServiceNow data (MaestroRS Sample Orientation – p11)



[Image: SNInstance.PNG]

- Module Overview
  - This module discusses:
    - Accessing MaestroRS
    - Navigating to the different area in MaestroRS
- Accessing MaestroRS (MaestroRS Sample Orientation – p6)
  - Log in using the ServiceNow **username** and **password**
- Navigating MaestroRS (MaestroRS Sample Orientation – p6)
  - In the filter search area, enter **Business Continuity**
  - Click **Home**
    - The *Admin and User Dashboard* opens
      Note *– Interface differs per user role and may not represent your log in options.*
  - Creating *Favorites* gives quick access to often used pages. Make *Home* a *Favorite* for quick access later.
    - Click the **star** icon next to *Home* in the navigation pane
    - **Show** where it is now listed under *Favorites*.
  - Each user's specific activities are listed under *My Activities*
    - Expand **My Activities** in the navigation pane to view all activities assigned to you – they are specific to each role
    - Click an activity to show it open in the main pain. Select **My Plans** to demonstrate it.

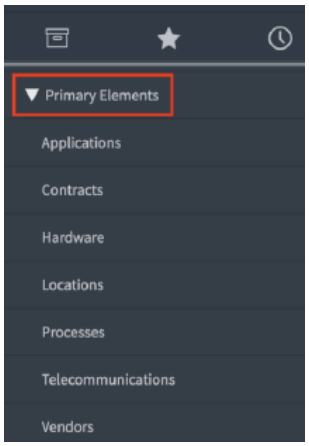


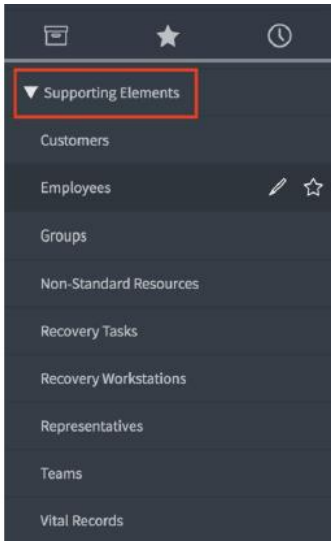
- Define and Locate:
  - Elements (Global and Specific)
    - Overview (MaestroRS Sample Orientation – p9)
      - Not all roles can create and use Elements, but it is important for all roles to know what they are and how they are used.
      - Elements are the physical and logical artifacts that make up business processes, technology, resources, people, locations, vendors, or anything else that supports a Business Continuity or Disaster Recovery program. SIMPLIFY WORDING
      - Elements are the cornerstone of Plans. Plans are created to manage and protect the elements within them.

- Elements are divided into *Primary* and *Supporting* elements. Primary are directly used in recovery and planning. Supporting elements support Primary ones. (resource) (MaestroRS Sample Orientation – p10)

Primary	Supporting
Applications	Customers
Contracts	Employees
Hardware	Groups
Locations	Non-Standard Resources
Processes	Recovery Tasks
Telecommunications	Positions
Vendors	Recovery Workstations
	Representatives
	Teams
	Vital Records

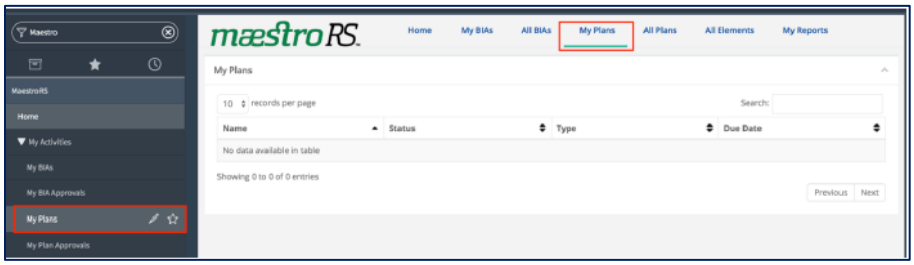
- If your role includes working with *Elements*, they are accessed through the menu under *Primary Elements* and *Supporting Elements.* (MaestroRS Sample Orientation – p9,10)
    - Scroll down the navigation menu to *Primary Elements* under Maestro. If needed, click the **arrow** to expand the list.
    - Scroll down the navigation menu to *Supporting Elements* under Maestro. If needed, click the **arrow** to expand the list.





- Plans (MaestroRS Sample Orientation – p18)
    - Plans define how XXXXX resources are protected and recovered during and after an event affecting them. Plans, and the related elements, are created by Administrators. If not an Administrator, your role may allow you to create, view, or manage a plan you participate in using existing elements.

- Access plans assigned to you by selecting either **My Plans** under *My Activities* or by the **My Plans** link.



- Parts of a *Plan* include: (MaestroRS Sample Orientation – p18 - 30)
  - Generate PDF
  - Edit Plan, if role allows
  - Plan Details (approver, owner, contributor, etc.)
  - Plan Summary (assumptions, purpose, scope, objective)
  - Elements

- Reports (ServiceNow MaestroRS Admin Guide p98)
  - Reports present information. Some roles can create reports, other run existing reports. Let's look at one.
  - Running a Report:
    - Click **My Reports** at top of *ServiceNow BCM* page
    - Locate the desired **report**
    - Click **View Report**
    - Viewable sections of reports include:
      - TBD
    - Editable report elements include:
      - *Data* – use this pick list to update the table that is the basis of the report
      - *Type* – choose the report type from the choices provided
      - *Group By* – select a field to use as a grouping level for the report results
      - *Available* – this is the list of fields available to display in the report
      - *Selected* – this is the list of fields currently selected to appear in the report

SN Admin and MaestroRS Admin

Create a New Plan

- Introduction
  - Background information
    - ServiceNow BCM has the flexibility to support the creation of all types of plans. A plan is created by a system administrator, and access to build the plan is provided to end users through ServiceNow BCM security.
  - To standardize our XXXXX runbooks, the business application names must be the official Application service name used in the *ITConnect CMDB*
- Overview of Module
  - This module discusses:
    - TBD
- Create a New Plan
  - Setup and Configure
  - Build a new plan (SN Maestro Admin – p41)
    1. Enter **ServiceNow BCM** in the filter field.
    2. Scroll down to the *Plan Admin* section of the *ServiceNow BCM* links.
    3. Click **Build Plan**.
    4. From the *Build Plan Options*, select **Create New**, and click the **BUILD PLAN** button.
    5. Enter the plan **details** in the fields provided.
       a. *Plan Approver* – person responsible for reviewing and approving or rejecting the plan
       b. *Owner* – person with ultimate authority and responsibility for the plan
       c. *Contributors* – persons who maintain the plan
    6. Use the **lookup** button to the right of the Summary field in the lower portion of the screen to assign *a Plan Summary*. The Plan Summary contains the standard plan overview details such as the purpose, scope, and objective of the plan.
    7. Click **SUBMIT** to save the new plan.

- Plan Summaries
  - Create a *Plan Summary* Section and Assign it (SN Maestro Admin – p45)
    - Introduction
      - TBD
    - Create a Plan Summary
      1. Enter **ServiceNow BCM** in the filter field
      2. Scroll to the *Plan Admin* section
      3. Click **Plan Summary Section** link
      4. Click **New**
      5. Enter a **name** for the new plan summary.
      6. Complete the ***Summary Section*** form:

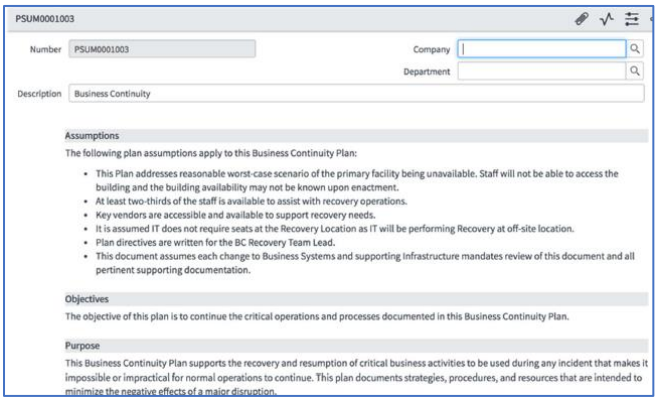
a. *Type* can be useful for differentiating Summary Sections with similar names designed for different BC/DR type needs.
b. *Inactive Sections* will be hidden from the *Plan Summary* within a Plan.
a. Can also create new *Summary Sections* directly from within the Plan Summary record.

7. Click the **SAVE** or **SUBMIT** button to save the new plan summary

- Assign Summary Sections
  - Introduction
    - TBD
  - Assign Summary Section
    1. Open the **Plan Summary** record, as created in previous section.
    2. At bottom of record, click: _____

       DIRECTIONS INCOMPLETE
- Reorder Plan Summary Sections
  - Double-click the **number** in the *Order* column
  - And TBD

- Verify Plan Summary Section
  - *Plan Summary* sections are displayed in HTML format on the *Plan Summary* record. Use this to validate the *Summary Section* verbiage, formatting, and order are all correct.



- Plan Tasks
  - Introduction
    - Tasks assigned directly to Plans can assist in overall Plan Recovery. They share the same features as Element Tasks
  - Task Order
    - To reorder tasks, simply drag and drop the task row to a new position. The *Order* updates accordingly.
  - Parallel Tasks
    - ServiceNow BCM provides the ability to identify tasks that can be performed at the same time, i.e., parallel tasks. Tasks with the parallel

box checked assume the same order as the previous task. When activated within a Recovery Exercise Management (REM) event, they also have the same task order.

- Parallel Tasks can be enabled by updating the following Plan Setting:
  - For more details on updating Settings, see Section 10 - ServiceNow BCM Settings.

- Task Assignments
  - Plan Tasks can be assigned to the following:

Element Label	Element Name
Group	x_fairc_res_group
Team	x_fairc_res_team
Employee	x_fairc_res_employee
Vendor	x_fairc_res_vendor

- Assign Elements
  - Introduction
    - Any Element class can be assigned to a plan, however for most plan types a specific subset of elements should be assigned. For example, Processes, Locations, and Vendors might be assigned to a Business Continuity Plan, while Applications, Hardware, and Telecom would be assigned to a Disaster Recovery Plan.
    - Element class assignments, and their order, are configured by the admin on a per plan basis via the Plan's ***Assignments*** section.
    - To adjust Plan Assignments (as an admin):
      1. Open the **admin view** of the *Plan record* in ServiceNow
      2. Click the **Assignments** tab
      3. Assign and/or unassign elements by dragging and dropping element **headings** between the two columns. Change the assignment order by dragging and dropping headings up and/or down within the column. Release the mouse button when the blue backdrop appears behind element position
      4. Click the **UPDATE/SAVE** button to save the changes

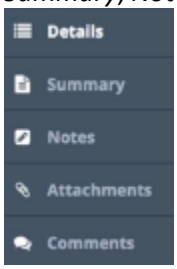
  - Two columns will be visible: Available Elements and currently Assigned Elements
- Plan Image
  - Introduction
    - The *Document settings* allow control over the image that appears on the cover page of published plan.

  - Set the Plan Image
    1. Open the **Plan** record
    2. Click the **Document** tab.
    3. Click the **dropdown list** for the *Image Source* field and select:
       a. **Default** – uses the image displayed in the top left corner of the ServiceNow / ServiceNow BCM screen.

b. **Company** – uses the image saved in the Company record in ServiceNow.
c. **Other** – displays a link to upload an image for use in the plan.

- Plan Header and Footer
  - Introduction
    - The Document settings allow control over the headers and footers for each published plan page.

  - Add Header and Footer:
    1. Open the **Plan record**.
    2. Click the **Document** tab.
    3. To add a Header/Footer, click the **magnifying glass** and select existing header/footer or click **New** to create a new one.
- Plan Settings
  - *General* - There are several Plan-related behaviors that can be controlled through application properties by the ServiceNow BCM admin.
    For more details about available plan configuration settings, see Section 10.7 – Plan Settings.
  - Icons
    - When viewing the Plan Building UI, the Navigational Menu contains icons that represent various sections within the Plan, including *Details*, *Summary*, *Notes*, *Attachments*, and *Comments*, as displayed below:

    - For more information on selecting icons, see Section 12.2 - Icons (Overview).
    - For more information on changing Icon settings, see Section 10.5.2 - Icons.

- Plan Security (SN Maestro Admin – p54)
  - Introduction
    - ServiceNow BCM provides significant granularity around Plan security, both within the ServiceNow UI and Plan Building UI. Security is controlled using ACLs on the Plan table that evaluate access using functions within a Script Include. These functions provide a more centralized location to manage and update security logic without having to change multiple ACLs.

  - General Plan Security
    - Default security allows any user with a *ServiceNow BCM Admin* role to create, update, and delete Plans. Additionally, any user with a ServiceNow BCM role and assigned to the Plan as a Contributor, Owner,

or Approver can add and remove Plan Assignments while the plan status is *In Progress*. These rules can be updated by modifying the ACLs on the table and the security rules below.

- The following functions are used within the Script Include **PlanSecurityUtils**:
  - For more details on editing these functions, see Section 12 – Modifying Script

Function	Description
CanCreate	Ability to build new Plans (defaults to admins)
CanRead	Ability to read Plans (defaults to viewers and above)
CanWrite	Ability to write to the plan (defaults to admins and users assigned to Plans)
CanWriteField	Ability to write to a specific field (defaults to admins and users assigned to Plans)
CanDelete	Ability to delete existing Plans (defaults to admins)

- Plan Assignment Security
  - When viewing Plan Assignments within the Plan UI page, there are individual links that, by default, are available for any Plan Builder. Link visibility is controlled based on additional logic, such as the user role or type of Element.
  - These links are controlled by the following functions within the Script Includes PlanSecurityUtils and ElementUtils (correspondingly):

Function	Description
AssignElement	Controls visibility of [assign] element link
EditAssignment	Controls ability to edit plan assignment (such as order, assigned to)
UnassignElement	Controls visibility of [remove] link
CreateElement	Controls visibility of [create] element link, based on Element "create" security
EditElement	Controls visibility of [edit] link on the Element, based on Element "write" security
EditAttachment	Controls ability to add/remove attachments on Element

Function	Description
getPlanDependencies	Specify default types of Elements that can be assigned as Supplemental Dependency

For more details on editing these functions, see Section 12 – Modifying Script Includes.

HINT

Prevent Plan Builders from:
** Removing Processes from a Plan (e.g., they are part of a template)*
** Only allow Hardware as Supplemental Dependencies for Application*

- Plan Actions
  - There are several plan actions that are available in both the ServiceNow form and Plan Building UI. The button names are the same and their availability is controlled by the same logic. The following table maps the actions with the corresponding function within the *PlanSecurityUtils* Script Include:

Action Name	Function	Description
Approve	Approve	Approves Plan, set plan Status to Approved
Archive	Archive	Archives Plan, set plan Status to Archived
Edit Plan	EditPlan	Edit Plan
Generate PDF	GeneratePDF	Generate PDF
Reject	Reject	Reject Plan, returns Plan to Contributors
Restart Review	RestartReview	Restart Review on Plan, usually after Rejected
Start Review	StartReview	Start Review, ready for Contributors
Submit Approval	SubmitApproval	Submit plan for Approval
Unarchive	Unarchive	Unarchive plan back to In Progress status

For more details on editing these functions, see Section 12 – Modifying Script Includes.

- Plan Activity Log
  - Introduction
    - ServiceNow BCM creates a log of changes made to plan settings. To view a list if changes, click the **Activity** tab.

NOTE | Some fields might not show up in the Activity by default. Have the ServiceNow admin add all fields to Activity as needed.

- Fields and Forms
  - Introduction
    - Plan records come with out of box forms and data fields that were selected based on industry best practices. However, the fields used on ServiceNow forms and within ServiceNow BCM UI can be configured to meet customer requirements.

  - Plan Details (ServiceNow Form)
    - ServiceNow forms are used to manage how Plan data is presented when viewing records within the ServiceNow interface. These forms are usually viewed only by users who have access to create or update Plans, and include fields used for configuring Plan details, participants, and security access.
    - Default View
      - The Default view on the Plan form is used by ServiceNow BCM admins to setup and configure the Plan. Once setup, ServiceNow BCM users will complete Plan Building using the ServiceNow BCM UI. For more information on modifying the Default view, see Section 11 - Field & Form Administration.

  - Plan Details (ServiceNow BCM UI & PDF)
    - Once the Plan is setup and ready for Plan Building, the Planners (Contributors, Owners, Approvers) can view and update the plan within the ServiceNow BCM UI. This view, along with the PDF, include fields relevant to the Planners and useful later during recovery:

- Farichild App View
  - The FairchildApp view controls which fields are displayed at the top of the Plan within the ServiceNow BCM UI and PDF. This view as two sections:
    - Main section (no title) – Larger title fields on Plan UI and PDF
    - Details section – remaining data displayed under details section on Plan UI and PDF

- **Best Practices (4/29 discussion)**
  - Keep tasks in the plan high level and link to handbook (on SharePoint) describing how to complete the task(s) to keep plan length manageable
  - Create remediation tasks as needed to assure future success

- Delete Plan

Create a Plan from an Existing Plan

Duplicate Plans and Plan Templates (SN Maestro Admin – p43)

- Introduction
  - ServiceNow BCM allows any plan to be duplicated. This means that templates can be created that reduce the time required for plans to be completed. Plan Template creation is often one of the first priorities for a new ServiceNow BCM implementation because it streamlines the process of plan creation. Create a template for each plan type needed by the organization. Populate the template with as much common data as possible. Duplicate the template as needed to create new plans that will require much less effort for completion.
- To duplicate a plan:
  1. Enter **ServiceNow BCM** in the filter field.
  2. Scroll down to the *Plan Admin* section of the ServiceNow BCM links.
  3. Click on **Build Plan**.
  4. Select **Copy** existing plan from the *Build Plan* options.
  5. Select the **plan** to be duplicated from the *Select Plan from Library* field.
  6. Choose an **option** from the *Copy Summary Options* menu.
     a. Same Summary – uses the same plan summary as the one assigned to the plan being duplicated.
     b. Copy of Summary – creates a duplicate of the plan summary assigned to be plan being duplicated.
     c. New Summary – creates a new plan summary
  7. Choose an **option** from *Copy Summary Section* options (if Copy of Summary selected):
     a. Use Same Summary Sections – uses the same Summary Section records in new Plan Summary record
     b. Create copies of Summary Sections – copies all data from existing Summary Sections into new Sections, which can then be edited without impacting existing Plans
  8. Choose an **option** from the *Copy Dependency* options.
     a. Same Dependencies – assigns the same records in the duplicated plan to the new plan
     b. No Dependencies – copies only the plan details; no records will be added to the new plan
  9. Click **BUILD PLAN**.
     1. Adjust the plan **name** and other plan details as needed.
     2. Click the **UPDATE** button to save the changes.

Manage Elements

(ServiceNow BCM Administration Guide, p10)

- Introduction
  - Elements are the cornerstone of ServiceNow BCM. They are the physical and logical artifacts that make up business processes, technology, resources, people, locations, vendors, or anything else that supports a Business Continuity or Disaster Recovery program.

    ServiceNow BCM provides the ability to create and manage relationships between these various elements, allowing BC/DR users to identify key dependencies that support recovery of critical functions during an actual or simulated recovery event.

    These elements can then be used in other key BC/DR functions: Business Impact Analysis, Planning, and Recovery and Exercise Management (REM).

- Module Overview
  - This module discusses:
    - Default Element Classes
    - Leveraging ServiceNow Data
    - Element Security
    - Element Dependencies
    - Tasks
    - RTO, RPO, Recovery Ter Calculations

- Default Element Classes
  - ServiceNow BCM includes Element classes that are widely used by customers and adhere to industry best practices. These elements are divided into Primary and Supporting elements, where Primary are directly used in Recovery and Planning, and Supporting elements are most often used to support recovery of Primary elements. Regardless, all element classes can be used in the same manner throughout the application.
  - NOTE | Element class names can be changed by a ServiceNow admin by accessing the table's Dictionary and changing the corresponding Label.

- Leveraging ServiceNow Data
  - One of the strengths of the ServiceNow platform is the ability to support multiple business functions with a single federated set of enterprise data. Much of this enterprise data can be found in core ServiceNow tables, including the CMDB, User, Location, and Company tables.

    Rather than duplicate management of this data in multiple locations, ServiceNow BCM leverages this existing data (including any relationships defined within the CMDB) throughout the application. ServiceNow BCM uses Data Sources to create elements that reference back to the original ServiceNow

source tables. Any data changes on these source tables are immediately reflected on the corresponding element throughout ServiceNow BCM.

- By default, ServiceNow BCM provides the following data sources between core ServiceNow and Element tables.
- MaestroRS sync settings creates linked Elements according to a regular schedule and to be filtered using custom criteria. The syncs can be individually activated and managed as desired.
  Data Sources consist of the following components:
  - *Data Sources* – configure the ServiceNow source table and filter conditions, MaestroRS destination table, associated Data Script, and Scheduled Job
  - *Data Scripts* – template script logic that determines field data to copy over, active/inactive status validation
  - *Scheduled Jobs* – actual code executed to sync data, updated from associated *Data Script*
- Locating Data Sources
  1. Enter **ServiceNow BCM** in the *ServiceNow* navigation menu field.
  2. Scroll down to the *Misc*. section of the ServiceNow BCM links.
  3. Click on **Data Sources**.

- Filtering Source Data
  1. Click the **name** of sync where filtering is desired.
  2. In the *Source Details* section, create **filter conditions** using the *Field*, *Operator*, and **Value** fields.
  3. Click the **UPDATE** button.

  - Additional filter conditions can be added by clicking on the **ADD FILTER CONDITION** button or the **ADD** button to the right of the value field. Additional conditions default to be *And* clauses. An *OR* clause can be added by clicking on the **ADD OR CLAUSE** button or the **OR** button to the right of the value field. The magnifying glass to the right of the value field allows a search of the existing data. The X button to the right deletes the condition.

- Managing Inactive Data
  - When data in ServiceNow core tables becomes inactive, it is recommended that the corresponding Elements are marked inactive but not deleted. This allows users to report on inactive Elements assigned to Plans and Dependencies.

    In order to identify inactive ServiceNow records, they must be included in the Data Source conditions. If they are filtered out, then the corresponding Data Script can never process them and update the corresponding Elements.

    Default logic in the Data Scripts use these records to flag previously active elements as *inactive*; however, it won't create new Elements if they are inactive. ServiceNow BCM includes logic to identify inactive ServiceNow records based on best practices (e.g., Active flag on Users, Operational

Status on CIs), however customers should update these conditions according to their specific configurations.

- In the *Data Scripts*, look for similar logic to the following and update active/inactive status accordingly: [see image in reference]

- Updating Data Scripts and Scheduled Jobs (SN Admin)

  If any Data Sync code needs to be updated, perform the following steps:

  1. Create a **copy** of original Data Script record (as necessary)
  2. Update **new copy** of Data Script record (as necessary)
  3. Open **corresponding Data Source** record
  4. Click the **Scheduled Job** tab
  5. Update **Script Template** to use new *Data Script* record (as necessary)
  6. Click **Update Scheduled Job** to update associated job with new code from *Data Script Template*

- Scheduling Jobs

  1. Click the **Scheduled Job** tab. (SN Admin)
  2. Click the **INFORMATION** button to the right of the *Scheduled Job* field.
  3. Select a **schedule** from the *Run* pick list.

- Executing Manually (SN Admin)

  Manual data syncs can be run at any time from the scheduled job information screen by the ServiceNow admin.

  1. Click the **Scheduled Job** tab.
  2. Click the **INFORMATION** button to the right of the *Scheduled Job* field to open the *Scheduled Job*.
  3. Click the **EXECUTE NOW** button.

- Create a New Data Source
  - To create new Data Source (such as for new custom Elements), create new copies of the following records:
    - Data Source
    - Data Script
    - Scheduled Job
  - Follow the previous steps to update the new Data Source record accordingly.
  - HINT | *Start with a similar type of Data Source/Script so best align data script logic around checking active/inactive and copying fields.*

- CMDB Dependencies
  - Data Sources have been designed to leverage any existing dependencies between CMDB Configuration Item (CI) records. If there is a direct parent/child relationship between two CIs in the CMDB, and both of those CIs are synced as Elements, then a corresponding dependency is created within ServiceNow BCM.
  - CMDB Dependencies are managed completely by the Data Sources and cannot be updated by admins or users directly. Any relationships that are

created and/or deleted in the CMDB are updated accordingly in ServiceNow BCM.
    - These CMDB dependencies are identified in ServiceNow BCM as:
        - Highlighted Green in ServiceNow
        - Solid Line in Dependency Graph
        - Highlighted Green in Element Selector

- Element Security (Updates require SN Admin)
    - ServiceNow BCM provides significant levels of Element security controls, both within the ServiceNow and ServiceNow BCM UI. What users can see and do with Elements is controlled by a combination of ACLs and a Script Include (ElementSecurityUtils), with most ACLs using logic contained within the Script Include.
        - There are two main areas of Element security:
            - General – Controls who can edit which classes of elements
            - ServiceNow BCM UI – Controls which links are visible in the UI
- General Security
    - By default, any user with a ServiceNow BCM Editor role can create, update, and delete Elements and their Dependencies. These rules can be updated based on user properties such as role, location, or department. The following functions are provided within the Script Include ElementSecurityUtils:

Function	Description
canCreate	Ability to create new elements
canRead	Ability to view existing elements
canWrite	Ability to update existing elements
canDelete	Ability to delete existing elements
canCreateDependencies	Ability to create new Element dependencies
canReadDependencies	Ability to view existing element dependencies (based on ability to read parent/child elements directly
canWriteDependencies	Ability to update element dependencies (including RTO Overrides, Order, Assigned To on tasks)
canDeleteDependencies	Ability to remove element dependencies

    - For more details on editing these functions, see Section 12 – Modifying Script Includes

- UI Security
    - When viewing elements within the *Element Details* page, there are individual clickable links that by default are available for anybody with a user role. These rules can be updated based on user properties such as role, location, or department.
    - These rules are controlled by the following functions within the Script Include ElementSecurityUtils:
    - For more details on editing these functions, see Section 12 – Modifying Script Includes

- Element Dependencies

- ServiceNow BCM users can create dependencies between any Element, expanding beyond dependencies mapped from the CMDB relationships as discussed in Section 4.3.8 - CMDB Dependencies.
- These dependencies are mapped as a parent/child relationship, where:
  - Parent elements are at the top of the dependency tree (e.g., Process)
  - Child elements are at bottom of the dependency tree (e.g., Hardware or Telecommunications)
- NOTE | These Element Dependencies are included anywhere that element is assi as to a plan) throughout ServiceNow BCM.

- Adding and Removing Dependencies
  - These dependencies can be mapped on the ServiceNow BCM *Element Details* page
  - And on the ServiceNow Element form related lists, Required By (Parent) and Requires

- Dependency Security
  - The links for Adding and Removing Dependencies can be displayed and/or hidden based on user roles and permissions.
  - These rules are controlled by the following functions within the Script Include ElementSecurityUtils:

Function	Description
canCreateDependencies	Can create new dependencies (by default, only Editors or above)
canReadDependencies	Can see existing dependencies (by default, inactive elements are filtered from view from non-admins)
canWriteDependencies	Can update existing dependencies, such as editing RTO overrides or Task order (by default, only Editors or above)
canDeleteDependencies	Can delete existing dependencies (by default, only Editors or above)

- NOTE | For more details on editing these functions, see ***Section 12 – Modifying Script Includes***

- Tasks
  - Recovery Tasks are the cornerstone of Element recovery. In many BC/DR based tools tasks are assigned directly to plans, increasing the number of duplicate tasks created and maintained across multiple plans. ServiceNow BCM provides the ability to assign Tasks directly to Elements. These tasks are included everywhere that Element is assigned (such as to a plan) and included as part of Element recovery within Recovery Event Management (REM) feature of ServiceNow BCM. Any changes to these assigned tasks are reflected immediately throughout ServiceNow BCM.
  - Tasks assigned directly to an Element are called *Element Tasks*.
  - Task Order
    - To reorder tasks, simply drag and drop the **task row** to a new position. The Order updates accordingly.
  - Parallel Tasks

- ServiceNow BCM provides the ability to identify tasks that can be performed at the same time; i.e., parallel tasks. Tasks with the parallel box checked assume the same order as the previous task. When activated within a Recovery Exercise Management (REM) event, they also have the same task order.
- Parallel Tasks can be enabled by updating the following Element Setting: [see image in guide]
- For more details on updating Settings, see Section 10 - ServiceNow BCM Settings.

- Task Assignments
  - Recovery Tasks can be assigned to the following:

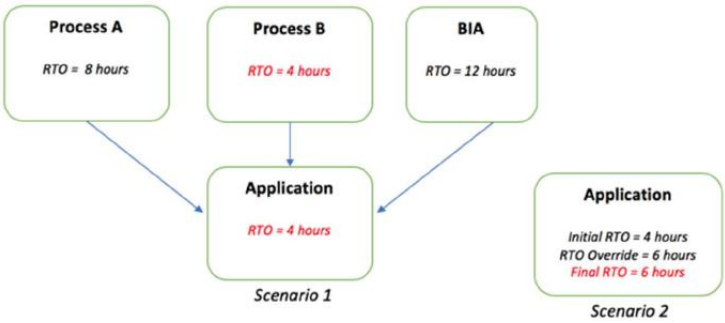
Element Label	Element Name
Group	x_fairc_res_group
Team	x_fairc_res_team
Employee	x_fairc_res_employee
Vendor	x_fairc_res_vendor

  - However, customers can limit the choices to any one or more of the above types as follows:
    - As ServiceNow BCM admin, navigate to **ServiceNow BCM** > **Element Admin** > **Element Settings**
    - Locate the settings for **x_fairc_res_task.allowed_assignments**
    - Enter the **element name(s)** as comma-separated list
- Task Link Security
  - The links for Creating, Adding, Removing, and Editing Tasks can be displayed and/or hidden based on user roles and permissions. These rules are controlled by the following functions within the Script Include ElementSecurityUtils:

Function	Description
createTasks	Controls visibility of [create task] link
assignTasks	Controls visibility of the [assign task] link
editTasks	Controls ability of users to change task Order, Assigned To

  - For more details on editing these functions, see Section 12 – Modifying Script Includes

- TRO, RPO, Recovery Tier Calculations
  - Please see Section 3 - Recovery Times, Points, and Tiers for an introduction to concepts discussed below.
  - RTO & RPO
    - The RTO (and RPO) on an Element is calculated using ServiceNow BCM proprietary engine based on the lowest value of the following inherited values:
      - Business Impact Analysis (BIA)
      - Parent dependencies (i.e., other elements)
      - Override(s)
    - This is illustrated in the following examples:



- RTO & RPO Overrides
  - Occasionally, customers want to override the calculated values for RTO or RPO, such as when they know a Process can take longer to recover than what a BIA specified.
  - To enable or disable RTO and/or RPO Overrides:
    1. As ServiceNow BCM admin, navigate to **ServiceNow BCM** > **Element Admin** > **Element Settings**
    2. Locate the settings for **allow_rto_override/allow_rpo_override**
    3. Set the corresponding value to **true/false** as desired
  - For more information on changing Icon settings, see Section 10.5 – Element Settings.
  - When enabled, users can enter their own values in the *RTO/RPO Override* field.

- Recovery Tiers
  - Recovery Tiers are automatically calculated every time an RTO/RPO is changed on an Element. The tier is selected from the record with the highest Recovery Time (Max) without going over

Setup & Configuration – Manage Data Sync

- Module Overview
  - This module discusses:
    - TBD
- Locating, Creating, Editing, Deleting
  - REM Settings
  - Data Sync Configuration

Recovery and Exercise Management (REM)

(SN Maestro Admin – p80)

- Introduction
  - Recovery and Exercise Management (REM) enables XXXXX to manage the entire lifecycle of a recovery event or exercise. REM leverages data defined with Element Dependencies and Plan Assignments to drive recovery.

- Module Overview
  - This module discusses:
    - Recovery and Exercise Management (REM) Defined
    - Status Progression During and Exercise
    - Elements in an REM
    - Security
    - Incident Command

- Recovery Events
  From within the Recovery Event management interface, event coordinators can coordinate and manage complete recovery of plans, elements, and tasks at both a strategic and tactical level. They can help drive recovery to completion by leveraging RTO and other data to prioritize element recovery order and assign tasks to the appropriate groups and individuals. Users can see tasks that are assigned to them, collaborate, and manage statuses of their individual tasks.

  REM supports the following Recovery Approaches:
    - Outage Based Recovery
    - Element Based Recovery
    - Plan Based Recovery

  - Outage Based Recovery
    - In Outage Based Recovery, the REM Selection Console is used to identify the current Elements experiencing an outage.
      1. Determine what's **impacted** based on element dependencies.

2. Identify plans containing the impacted Elements and select which **Plans** to activate.

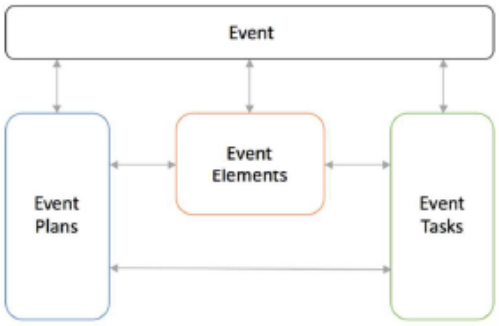
NOTE | All Elements assigned to those Plans will automatically be included in the Recovery Event.

- Element Based Recovery
  - In Element Based Recovery, event coordinators can select the Elements they want to recover directly and go straight to creating the Event without selecting Dependencies or Plans.

- Plan Based Recovery
  - In Plan Based Recovery, event coordinators can directly select the Plans to recover by skipping the Element and Dependency section and going straight to the Plan tab and selecting *Display All Plans.*

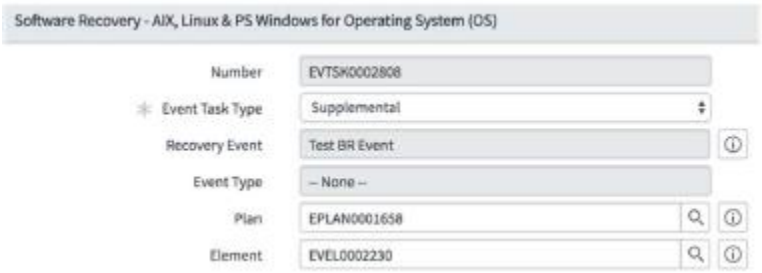
NOTE | All Elements assigned to those Plans will automatically be included in the Recovery Event.

- Data Structure
  - This diagram provides a high-level overview of the REM data structure, and how REM supports relationships between all the components used in the recovery event



REM Structure & Relationships [Image: EMStructureandRelationships.PNG]

  - For example, a Supplemental Task is a task assigned to a Plan Assignment (Element assigned to a Plan). When used in recovery, that Supplemental Task is assigned to both the Event Element and the Event Plan.



- Types of Recovery Tasks

- REM includes several different types of Recovery Tasks, which is determined by the relationship that Task has to the Elements, Plans, and Events.
- Review this overview of the REM task types.

Type	Description	Associated to Element	Associated to Plan	Associated to Event
Plan	Tasks assigned directly to an approved Plan.		*	*
Element	Tasks assigned directly to an Element.	*		*
Supplemental	Tasks assigned to a Plan Assignment (Element assigned to an approved Plan).	*	*	*
Ad Hoc	Tasks created during the Recovery Event (used to track work identified during Recovery Event).			*
Remediation	Tasks created towards completion of Recovery Event, useful for assigning post-recovery remediation steps.			*

- Recovery Event Status

  One of the challenges with these related record structures is maintaining accurate status across the entire Recovery Event. An Event Plan record status shouldn't indicate Complete if there are still Event Elements or Tasks that are In Progress. Fortunately, REM manages this automatically through automatic status updating.

  REM Status changes automatically:

  - When an Event Task changes to *In Progress*
    - Set any parent Element/Plan/Event to In Progress (if not already)
  - When an Event Element changes to In Progress
    - Set any parent Plan/Event to In Progress (if not already)
  - When an Event Plan changes to In Progress
    - Set parent Event to In Progress (if not already)
  - When an Event Task changes to Complete
    - Determines if there are open child Tasks
      - If so, then prevents closure of this Event Task
      - If not, then allows closure of this Event Task, then…
        - Determine Task Type (Plan, Global, Supplemental, Ad Hoc)
        - Based on Task Type (see table above), determine if associated record(s) have other open Tasks
          - If so, then it leaves those records In Progress
          - If not, then it sets records Complete
  - When an Event Element changes to Complete
    - Determines there are open child Tasks
      - If so, then prevents closure of this Event Element
      - If not, then allows closure of this Event Element, then…
        - Determines if associated Plans have any open Elements
          - If so, then it leaves Plans In Progress
          - If not, then it sets Plans Complete
        - Determine if associated Events have any open Plans, Elements, Tasks
          - If so, then it leaves the Event In Progress
          - If not, then it sets the Event Complete
  - When an Event Plan changes to Complete

- Determines if there are open child Event Elements and Event Tasks
  - If so, then prevents closure of this Event Plan
  - If not, then allows closure of this Event Plan, then…
    - Determine if associated Events have any open Plans, Elements, Tasks
      - If so, then it leaves the Event In Progress
      - If not, then it sets the Event Complete
- When as Event changes to Complete
  - Determines if there are open child Event Plans, Elements and Tasks
    - If so, then prevents closure of this Event
    - If not, then allows closure of this Event

- Tracking Recovery Percentage Complete
  - The event coordinator needs to manage recovery across all plans, elements, and tasks at a high level. REM supports this requirement by calculating percentage (%) complete across all records.
  - Review how REM calculates % complete at different levels.

Area	Calculation	Description
Task	(Total parent/child task % complete / Total task) * 100	Calculate across all parent & child (if exist)
Element	(Total task % complete / Total tasks) * 100	Calculate across all Element's child tasks
Plan	(Total Element % complete + Total child Plan Tasks % complete) / (Total Elements + Total Plan Tasks) * 100	Calculate across all Elements in the plan, plus any Plan Tasks (i.e., tasks assigned directly to plan but not Elements)
Event	(Total Elements % Complete + Total Plan/Ad Hoc/Remediation Task % Complete) / (Total Elements + Total Plan/Ad Hoc/Remediation Tasks) * 100	Calculates across all Elements and Plan/Ad Hoc/Remediation Tasks.

  - Event Percentage Complete
    - Calculating Event Percentage Complete is more complex and worth further discussion. A small plan might have 5 Elements in it and a large plan might have 100 Elements. If the small plan is 100 % complete and large plan is 0% complete, saying the Event is 50 % complete would provide an inaccurate picture of overall progress, since only 5 elements are recovered with 100 elements remaining.

      For this reason, Event completion is normalized across Elements and Tasks. For example, it excludes Plans.

      However, Global Tasks and Supplemental Tasks are already factored into Element % complete, so those tasks are excluded from calculations. Only Plan, Ad Hoc, and Remediation Tasks are included in the Event calculations
    - **NEED EXAMPLE HERE**

- Start and End Times
  - Another automated calculation included with REM is Start and End Times. Every Event Task, Element, Plan, and Event includes Start and End time calculations.
    - When a record State changes to In Progress, the Start Time is updated.
    - When a record State changes to Complete (or Canceled), the End Time is updated.

NOTE | When a closed record is re-opened, the End Time is reset.

- Event Element RTA
  - When an Event Element Start and End Times are complete, REM automatically calculates the RTA. This RTA can then be viewed on the associated Element record.

    As additional Recovery Events or Exercise Scenarios are performed, these RTAs are listed underneath the Element. Admins/Editors can use these values to determine an RTA value to apply on the Element for RTO Gap calculations.

- Element Recovery Order
  - Recovery Time Objectives (RTO) are powerful tools to identify how quickly an Element needs to be recovered. However, when viewing a large list of event Elements with the same RTO it might not be clear which one to recover first.
  - REM uses RTO and Element Dependencies to determine the Order to recover any Element. For example, if an Application requires a piece of Hardware (supporting Element) to be restored first, the Hardware is given lower priority.
  - Order of prioritization:
    - Elements with higher RTO are first
    - Elements with no RTO are last
    - Within the same RTO, supporting Elements are prioritized lower

  NOTE | Elements with the same RTO but no dependency upon each other will have the same Order.

- Add Event Plans
  - Plans can be added to the *Recovery Event* record by going to the REM Selection Console and selecting additional plans.
    1. Open existing **Recovery Event** record
    2. Under *Related Links*, select **Open REM Selection Console**
    3. Select additional **Plans** as needed or click **Display All Plans** to see additional Plans not included in the initial list.
    4. **Select Plans** > **Update Recovery Event** to save changes

  NOTE | All elements assigned to selected Plans will automatically be included in the Recovery Event.

- Add Event Elements
  - Elements can be added to the Recovery Event after the recovery has started.
    1. Open existing **Recovery Event** record
    2. Under *Related Links*, select **Open REM Selection Console**
    3. Select **Elements** from the *Elements and Dependencies* tab, as needed
    4. Select **Plans** > **Update Recovery Event** to save changes

  NOTE | All elements assigned to selected Plans will automatically be included in the Recovery Event.

- Add Event Tasks
  - Tasks associated with Plans and Elements are automatically added to the Recovery Event as part of the REM Selection Console process.

During the recovery, Event Coordinators may decide to create and assign other tasks to help track additional work. These are called *Ad Hoc* tasks.

After recovery is complete, coordinators may also decide to assign tasks to track post-recovery activities such as addressing any Planning gaps or incomplete Element dependencies. These are called *Remediation* tasks.

To create *Ad-Hoc* or *Remediation* tasks:

1. Open existing **Recovery Event** record
2. Under *Event Tasks* related list, click **New**
3. Populate following fields:
   - **Recovery Event** – should be auto-populated
   - **Event Task Type** – select Ad Hoc or Remediation
   - **Plan** – can select Event Plan, if necessary
   - **Element** – can select Event Element, if necessary
   - **Original Task** – can select an original Task, if necessary
   - **Short description**
   - **Description**
   - **Assignments** – assign to Groups, Users, Teams, if necessary
4. Click **Submit.** The new Task should appear in the Task related list on Event.

- Settings
  - These settings provide control over several REM components: **NEEDS MORE EXPLANATION**
    - Element classes available in REM Console
    - Allowed Plan status when using default Outage/Element Based Recovery
    - Allowed Plan status when viewing all Plans
    - Plan Assignment classes to include/exclude from Event
    - Maximum number of Element dependency levels

    NOTE | For more details about available plan configuration settings, see ***Section 10.8 - REM Settings.***

  - Element Classes Available in REM Console
    - Administrators can configure which Element classes are available in the Elements section of the REM Console. This is done by specifying a comma-separated list of Element table names in the following REM Setting: **NEEDS MORE EXPLANATION**
    -
    -

Category	Name ▲	Value	Type
REM Settings	elements.nav_menu.available_classes	x_fairc_res_application, x_fairc_res_con...	string

  - Allowed Plan Status (Default)
    - When viewing lists of Plans available based on previous Element & Dependencies sections (the Default view), available Plan records can be limited by Plan Statuses. This is configured by specifying a comma-separated list of Status values in the following REM Setting: **NEEDS MORE EXPLANATION**

Category	Name ▲	Value	Type
REM Settings	plans.allowed_status.default	Approved, In Progress	string

- Allowed Plan Status (all Plans)
  - When viewing lists of all Plans available regardless of Elements (all Plans view), available Plan records can be limited by Plan Statuses. This is configured by specifying a comma-separated list of Status values in the following REM Setting: **NEEDS MORE EXPLANATION**

Category	Name ▲	Value	Type
REM Settings	plans.allowed_status.all	Approved	string

- Plan Assignment Classes to include/exclude from Event
  - When Plans are included in Event Recovery, by default all Elements assigned to those Plans are also included in Event Recovery. This might include Elements that don't need to be part of recovery, such as Employees.

    To limit the classes included in Recovery, the following REM Settings specify a comma separated list of Elements to INCLUDE in recovery, or a comma-separated list of Elements to EXCLUDE: **NEEDS MORE EXPLANATION**

Category	Name ▲	Value	Type
REM Settings	plans.element_classes.exclude	x_fairc_res_customer, x_fairc_res_employ...	string
REM Settings	plans.element_classes.include		string

HINT | *Use whichever setting requires fewer Elements to be specified.*

- Maximum number of Element dependency levels
  - As Element Dependencies are traversed up the parent dependency tree, it's possible that circular dependency assignments are encountered. In order to prevent a never-ending loop, the following REM Setting specifies a maximum number of levels to traverse before stopping. **NEEDS MORE EXPLANATION**

Category	Name ▲	Value	Type
REM Settings	dependencies.max_levels	10	string

- Security (ServiceNow BCM Administration Guide, p95)
  - ServiceNow BCM provides significant granularity around REM security. Security is controlled using ACLs on the Plan table that evaluate access using functions within a Script. These functions provide a more centralized location to manage and update security logic without having to change multiple ACLs.

  - General REM Security
    - Default security allows any user with a ServiceNow BCM Admin role to create, update, and delete Events, Event Plans, Event Elements, and Event Task records. These rules are updated by modifying the ACLs on the table and the security rules. **NEEDS MORE EXPLANATION**

- Review these functions used within the *PlanSecurityUtils* script:

Function	REM Table	Description
canCreateEvent	Event	Ability to create an Event
canReadEvent	Event	Ability to read an Event (used within Business Rule)
canWriteEvent	Event	Ability to write to an Event
canDeleteEvent	Event	Ability to Delete an Event
canReadEventField	Event	Ability to read a specific Event field
canWriteEventField	Event	Ability to write to a specific Event field
canCreatePlan	Plan	Ability to create Event Plan
canReadPlan	Plan	Ability to read an Event Plan (used within Business Rule)
canWritePlan	Plan	Ability to write to an Event Plan
canDeletePlan	Plan	Ability to delete an Event Plan
canReadPlanField	Plan	Ability to read a specific Event Plan field
canWritePlanField	Plan	Ability to write to a specific Event Plan field
canReadPlanElement	Plan <-> Element	Ability to see a Plan from Element record, or Element from Plan record
canCreateElement	Element	Ability to create Event Element
canReadElement	Element	Ability to read Event Element (used within Business Rule)
canWriteElement	Element	Ability to write Event Element
canDeleteElement	Element	Ability to delete Event Element
canReadElementField	Element	Ability to read a specific Event Element field
canWriteElementField	Element	Ability to write a specific Event Element field
canCreateTask	Task	Ability to create an Event Task
canReadTask	Task	Ability to read an Event Task
canWriteTask	Task	Ability to write to an Event Task
canDeleteTask	Task	Ability to delete an Event Task
canReadTaskField	Task	Ability to read a specific Event Task field
canWriteTaskField	Task	Ability to write to a specific Task field

Threat Assessment

(ServiceNow BCM Administration Guide, p96)

- Overview
  - Threat Assessments enable XXXXX to assess location vulnerabilities to multiple types of threats.
    Users assess a threat's:
    - Impact
    - Likelihood
    - Controls in place
  - And the application automatically determines:
    - Inherent Risk
    - Residual Risk
  - Once the Location's entire Risk Assessment is completed, it calculates an overall Inherent Risk and Residual Risk score. Dashboards are then used to identify and assess Locations with critical risks, both overall and against specific threat categories.

- Security
  - Threat Assessments default security settings include:
    - Assessments
Function	Role
Create	x_fairc_res.admin
Read	x_fairc_res.viewer
Write	x_fairc_res.user
Delete	x_fairc_res.admin
    - Threats
Function	Role
Create	x_fairc_res.admin
Read	x_fairc_res.viewer
Write	x_fairc_res.admin
Delete	x_fairc_res.admin

- Incident Command roles and forms (ICS_Forms_508_12-7-10.pdf)

SN Admin Only

Manage Reports

(ServiceNow BCM Administration Guide, p98)

- Introduction
  - Background information
  - ServiceNow BCM comes with a catalog of reports for use upon installation. Custom reports can be created and added to the catalog as needed.

- Run a Report
  1. Click the **My Reports** link from the links at the top of the ServiceNow BCM screen.
  2. Locate the desired report and click the **View Report** link to the right of the report details.

- Edit a Report
  Existing reports can be updated and saved with the changes made or as new reports that can be run by users.
  - Click the **My Reports** link
  - Click the **View Report** link to the right of the desired report.
  - Update the report using the report controls in the upper portion of the screen.
    - **Data** – use this pick list to update the table upon which the report is based
    - **Type** – choose the report type from the choices provided
    - **Group By** – select a field to use as a grouping level for the report results
    - **Available** – this is the list of fields available to be displayed in the report
    - **Selected** – this is the list of fields currently selected to appear in the report
  - Click the **RUN** button to run the report.
  - Click the **SAVE** button to save the changes to the report.

- Add Filter Conditions to a Report
  Filters can be applied to reports to screen unwanted data from the results.
  - Open and Run a desired report
  - Click the **ADD FILTER CONDITION** button.
  - Choose a field to filter on and an operator.
  - Enter **data** to be filtered (if applicable).
  - Click the **RUN** button to run the report with the filter applied.
  - Click the **SAVE** button to save the report with the new filter condition.

- Add Multiple Filter Conditions to a Report.
  Add multiple filter conditions to filter data from multiple fields or to add multiple constraints to a single field.
    1. Run the desired **report**.

2. In the filter section, click on the **AND** or **OR** button to add a condition.
3. Choose a **field** to filter on and an operator.
4. Enter **data** to be filtered (if applicable).
5. Click the **RUN** button to run the report with the filter applied.
6. Click the **SAVE** button to save the report with the new filter condition.

- Add a Sort Field to a Report

  Adding a sort field will provide a default sort order for the report results.

  1. Run the desired **report**.
  2. Click the **ADD SORT FIELD** button.
  3. Choose the sort **field** from the choices provided.
  4. Click the **RUN** button to run the report with the sort order in place.
  5. Click the **SAVE** button to save the report with the new sort field.

- Report Options

  Once a report has been run, it can be exported as an Adobe Acrobat file (.pdf), exported as an Excel file, or scheduled for delivery according to a set schedule.

  - Exporting a Report as a PDF File
    1. Run the desired **report**.
    2. Click the **drop-down list** next to the *SAVE* button.
    3. Select the **Export to PDF** option.

  - Export a Report as an Excel File
    1. Run the desired **report**.
    2. Right-click in the **header** row of the *report results*.
    3. Point at the **Export** option on the menu.
    4. Select **Excel**.

  - Schedule a Report
    1. Run the desired **report**
    2. Click the **drop-down list** next to the *Save* button.
    3. Select **Schedule** in the menu.
    4. Adjust the **schedule options** as needed.
    5. Enter a **name** for the scheduled report.
    6. Use the button to select **users** who should receive the report. (If applicable)
    7. Use the button to select **groups** who should receive the report. (If applicable)
    8. Enter **e-mail addresses** for other contacts who should receive the report. (If applicable)
    9. Set the **frequency** for delivery of the report using the *Run*, *Day*, and *Time* fields.
    10. Select the **Conditional** checkbox to make delivery of the report dependent on criteria. (requires JavaScript)
    11. Check the **Omit if No Records** checkbox if delivery should not take place when the report contains no records.
    12. Enter a **Subject** for the e-mail.
    13. Enter e-mail **body text** in the *Introductory Message* field.

14. Choose the **format** of the report from the *Type* field.
15. Check the **Zip Output** checkbox if the report should be attached within a Zip file (.zip)
16. Use **Include With field** if the report should be delivered along with other scheduled reports.
17. Click the **Submit** button to save the changes.

- Create a New Report
  For a user to create a new report without basing it on a current report, a report-related security role is necessary. A ServiceNow administrator needs to assign the appropriate security role for report creation. There are several reporting roles available. The ServiceNow administrator can determine which role is appropriate based on how security access was implemented.
  1. Enter ***Reports*** into the *filter* field.
  2. Scroll to the *Reports* section.
  3. Click the **Create New** link under the *Reports* section.
  4. Update the report using the report controls in the upper portion of the screen.
     - **Data** – use this pick list to update the table upon which the report is based
     - **Type** – choose the report type from the choices provided
     - **Group By** – select a field to use as a grouping level for the report results
     - **Available** – this is the list of fields available to be displayed in the report
     - **Selected** – this is the list of fields currently selected to appear in the report
  5. Add *filter* conditions, as desired.
  6. Add *sort* field, as desired.
  7. Click **Save** to save the new report.

  In some cases, it may be simpler to edit an existing report in order to create a new report. If a reporting security role is not assigned, editing an existing report is the only way for a user to create a new report. When creating new reports by editing existing reports, ensure that the name of the report is updated prior to using the *SAVE* button.

Manage Homepages

(ServiceNow BCM Administration Guide, p107)

- Introduction
  - ServiceNow BCM allows the creation of custom dashboards. Customizing dashboards allows users to create new homepages that display the data from standard or custom ServiceNow BCM and ServiceNow reports.
  - Module Overview
    - This module discusses:
      - Creating a New Dashboard

- Editing Settings and Page Layout
- Widgets

- Create a New Dashboard
  1. Type **Home** into the filter field to access the system administration home page.
  2. Click the **New Page** button (plus sign +) next to the page drop down list.
  3. Double-click the **default page name** area to update it to a custom name.
  4. Click the **ADD CONTENT** button to choose the data to display in the new dashboard.
  5. Select **Reports** from the first column.
  6. Choose the **desired element** from the second column.
  7. Choose the **report name** from the third column.
  8. Click the **Add here** link at the bottom of the screen representing the section where the report should display.

- Adjust Dashboard Page Settings
  The new dashboard page can be refreshed manually and set to automatically refresh according to specific time intervals.
  1. To manually refresh the page, click the **Refresh Now** button (circular arrow).
  2. To automatically refresh the page, click the **Homepage Settings** button (gear icon), and select a **time interval** from the choices provided.

- Change the Dashboard Page Layout
  The dashboard layout controls the placement of the content for the page.
  1. Click the **Change Layout** button.
  2. Select a **layout** from the choices provided.
  3. Click the **Change** button.

- Widget Controls
  Each widget has a set of controls that become visible when hovering over the top right corner of the widget area.

  - **Refresh Widget** – refreshes the data displayed by the widget
  - **Edit Widget** – returns to the report screen to allow report editing
  - **Widget Description** – displays any description or help associated with the widget
  - **Close Widget** – removes the widget from the page

Complete Additional Setup and Configuration

(FOR RECOVERY TASKS?):

- Introduction
- Overview of Module
  - This module discusses…
- Miscellaneous:
  - Data Sync Scheduled Jobs
  - Fields & Forms
  - Users
  - Groups
  - Roles

Builder – Specific

Working with Plans

- Introduction
  - Plan elements are created by the Administrators. Builders can use plan elements assigned to them to create plans they participate in. Builders can also read other plans.
- Overview of Module
  - This module discusses…
- Read and write plans as *Participant*
- Read *non-participant* plans

Working with Elements

  - Introduction
  - Background information
- Overview of Module
  - This module discusses…
- Read and write elements
- Read element dependencies

Create a Plan from an Existing Plan

- See content in SN/Maestro Admin section

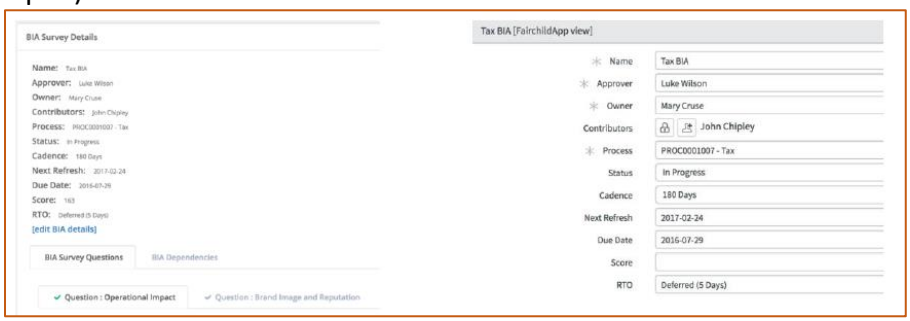
Approver – Specific

Manage Your Approvals: Quick Reference Guide

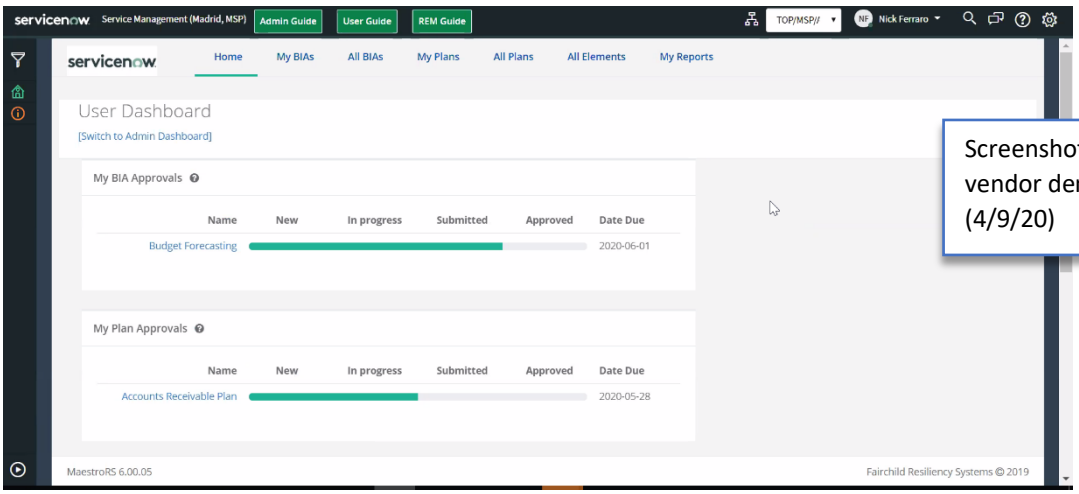
See PlanApproval.docx

Approvals are shown on one screen and represent the approvals that the logged in user needs to track and approve. The screen is the home screen and the approval of all elements are accomplished in one guide. Due to the simplicity, only a Quick Reference Guide (QRG) is required.

- FairchildApp view Approval & Rejection Comments (MaestroRS Sample Orientation – p48)



  - Overview of Module
  - Plan Actions (MaestroRS Sample Orientation – p27)
  - Approval & Rejection Comments (MaestroRS Sample Orientation – p47)



Screenshot from vendor demo (4/9/20)

View Only – Specific

N/A – only Meet Maestro - for All Roles