

## Catalog Item Requirements

Cat Item: Name

### Section 1: Catalog Item Definition

Attribute	Details	Guidance
Name		Name of the catalog item as it will appear to end users.
Catalogs		The catalogs where this item can be found.
Categories		The categories the user can find this item under.
<b>Item Details</b>		
Short description		A short description of the item. This appears in the item's tile when shown in a list.
Description		A longer description of the item. This appears only at the top of the form.
Meta		Additional search terms for this item. <a href="#">Add relevant tags to the Meta field using comma-separated list of tags. These tags will be used while searching the item. Not applicable if AI Search is configured.</a>
Delivery time		Shown to the user as an estimate for delivery.
<b>Picture</b>		
Icon		This is only seen in the category view of the old Catalog Homepage. It is not used in Service Portal. 27px by 27px.

Attribute	Details	Guidance
Picture		The image users see when viewing this item in the Service Portal.
<b>Pricing</b>		
Price		The one-off cost for this item.
Recurring price		The recurring charge for this item (e.g. monthly licence fee).
Recurring price frequency		How often the recurring price is charged.
Omit price in cart		Don't display the price in the cart or catalog listing.
<b>Portal Settings</b> – These settings are unique to the item and override any default Service Portal settings.		
Request method		Setting that controls the order submission experience. <ul style="list-style-type: none"> <li>• <b>Order Now:</b> Confirmation dialog with delivery info</li> <li>• <b>Request:</b> Confirmation dialog with no delivery info</li> <li>• <b>Submit:</b> Instant – no dialogs</li> </ul>
Hide 'Add to Cart'		Selected by default if the Request method is Request or Submit.
Hide 'Quantity'		Selected by default if the Request method is Request or Submit.
Hide 'Delivery time'		Selected by default if the Request method is Request or Submit.
Hide 'Add to Wish List'		
Hide Attachment		Users cannot add attachments
Mandatory Attachment		User must add at least 1 attachment
<b>User Criteria</b>		
Available for		Users who can access this item. Can be defined as any of the following:

Attribute	Details	Guidance
		<ul style="list-style-type: none"> <li>• Specific users</li> <li>• Groups</li> <li>• Roles</li> <li>• Companies</li> <li>• Locations</li> <li>• Departments</li> <li>• Advanced – scripted (potential performance implications)</li> </ul>
Not available for		Users who are not allowed to access this item.

## Section 2: Approvals

Approvals can be sequential (one after the other), parallel (all at once), or a combination of the two. Enter the same Order number for parallel approvals. Refer to **Appendix B** for example workflow patterns.

Approvers can be selected dynamically (e.g. the requestor's manager), or they can be a set users or groups. Try to avoid single individuals as this creates a single-point-of-failure in the request process when that individual is unavailable.

Use Conditions to define when an approval should be included or excluded. E.g. "Exclude C-level executives from requiring manager's approval".

Refer to **Appendix F** for example inputs.

Order	Approvers (Users or Groups)	Conditions

Enter the same Order number for parallel approvals

## Section 3: Fulfilment

### Requested Item (RITM)

Attribute	Details	Guidance
Assignment group		Required if catalog tasks are not used
Configuration item		Optional

### Catalog Tasks

Tasks can be sequential (one after the other), parallel (all at once), or a combination of the two. Enter the same Order number for parallel tasks.

Refer to **Appendix B** for example workflow patterns.

Use Conditions to define when a task should be included or excluded. E.g. “Only include ‘Install VLC media player’ task if that option was selected on the form”. Refer to **Appendix F** for example inputs.

Order	Assignment group	Short description	Description	Condition

Enter the same Order number for parallel tasks







## Multi-Row Variable Set Definition

These are sometimes called “table variables”. Refer to **Appendix E** for an explanation of multi-row variable sets.

**Important:** Use the table in **Appendix D** to copy-and-paste the required and optional configuration options for each type. Unused optional configurations don’t need to be included. Don’t forget the configuration options for all types.

Note that you cannot hide any variable in a multi-row variable set. This is like trying to hide a single cell in a table. You can only make the variable blank and read-only if it is not required.

Minimum row count	
Maximum row count	

Order	Type	Question	Required configuration	Optional configuration

## Appendix A: Service Portal Elements

### Category Listing

Picture >

Developer Laptop (Mac) < Name

Macbook Pro < Short description



View Details \$2,119.3856 < Price

### Catalog item view

Developer Laptop (Mac) < Name

Macbook Pro < Short description



Picture

The Apple Macbook Pro is laptop that is second to none. It provides a Retina display that fights glare and weighs approximately five pounds. High powered enough to complete computing tasks.

Description

Technical Specs:

- Intel core i7 processor
- 512GB PCIe-based flash storage
- Intel Iris Pro Graphics
- Backlit keyboard

Optional Software

Variables

- Adobe Acrobat
- Adobe Photoshop
- Eclipse IDE

Additional software requirements

 Add attachments

### Submit panel

The screenshot shows a product card with the following elements and annotations:

- Quantity:** A dropdown menu containing the number '1'. Annotation: "< Quantity".
- Price:** Text indicating the price: "Price: \$2,119.3856 + \$141.3866 Annually". Annotation: "Price >".
- Recurring price + frequency:** The same price text is annotated with "< Recurring price + frequency".
- Delivery Time:** Text indicating "Delivery Time: 5 Days".
- Add to Cart:** A button with a shopping cart icon and the text "Add to Cart".
- Order Now:** A blue button with the text "Order Now". Annotation: "< Request method".

## Breadcrumbs

---

[Home](#) > [Service Catalog](#) > [Hardware](#) > [Developer Laptop \(Mac\)](#)

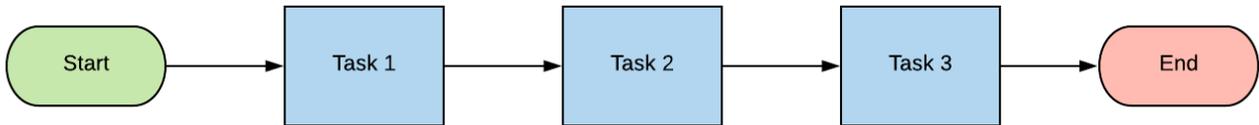
---

[Catalog](#) > [Category](#) > [Catalog item](#)

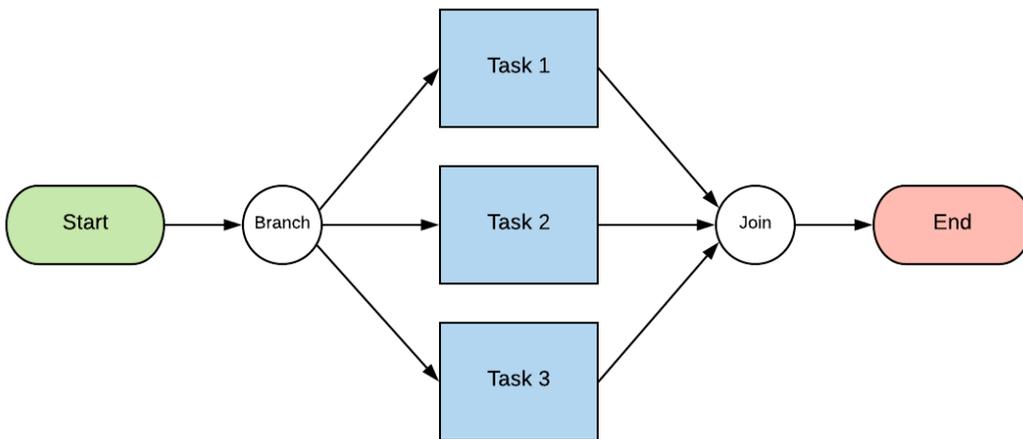
## Appendix B: Sequential vs Parallel

This section shows different workflow patterns for Approvals and Catalog Tasks.

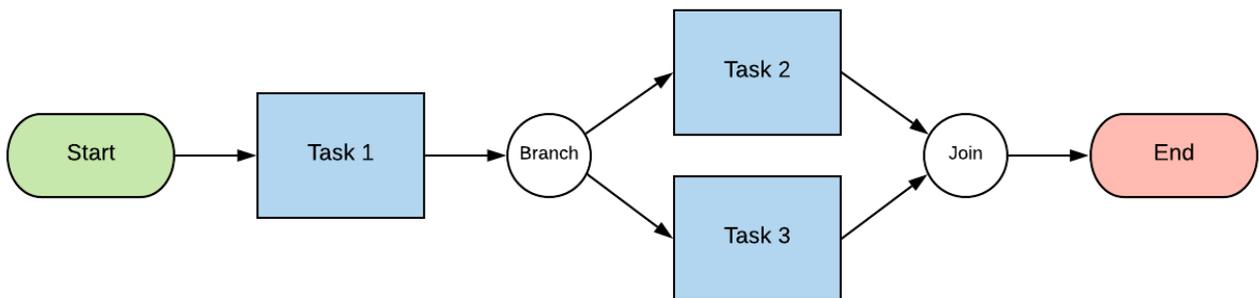
### Sequential



### Parallel



### Mixed – Sequential and Parallel



## Appendix C: Variable Types

**Single Line Text:** Free text input - limited to a single line (no line brakes). This type is also used for numbers (with input validation added).

Name of new distribution list

Number of attendees

**Multi Line Text:** Free text input. Use this for large blocks of text.

Business justification

Lorem ipsum dolor sit amet, consectetur adipiscing elit. In id aliquam ante. Aenean posuere efficitur metus augue, sed aliquam odio elementum non. Duis egestas a massa quis sagittis. Fusce nisl nulla, imperdiet eu dictum ac, mollis eget lectus. Phasellus bibendum venenatis fringilla. Vestibulum ut fringilla velit. Cras sagittis neque sit amet velit vestibulum faucibus nec sit amet risus. Suspendisse lobortis eget nulla sit amet ultrices.

**Select Box:** Also known as a **drop-down list**, or **choice list**. Use this when there is a small number of specific options to select from (about 15 or less). The user can only select 1 option. Users can search the available options by typing some text.

Model

Model

iPhone XS Max
▲

🔍

iPhone XS

iPhone XS Max

iPhone XR

**Reference:** Also known as a **lookup field**. A reference field allows you to select a record that exists in ServiceNow. For example, it is commonly used to lookup an employee. Other examples can include Company, Department, Configuration item, Incident, Country, etc. The records you want to lookup must all be from the same table. For example, you can use a reference field to lookup Users, and another reference field to lookup Groups, but you cannot have one reference field that looks up both. It must be one table per reference field. You can specify a filter for the records to limit what the user can select. For example, active employees only.

The user can type in free text to search for an existing record, but they must select a record. You cannot submit the form with free text in the field.

Affected employee

A screenshot of a reference field in a ServiceNow form. The field contains the text 'Geoffrey Sage' and has a small 'x' icon to its right. Below the field is a small downward-pointing arrow.

Affected employee

A screenshot of a reference field dropdown menu. The search input contains 'Ged'. The dropdown list shows the following options: Geoffrey Sage (highlighted in blue), George Grey, George Tukis, George Washington, and Georgette Bandyk.

If you want the user to be able to select multiple records, use a **List Collector**.

**List Collector:** See **Reference** above. Allows the user to select multiple existing records from one table.

Members of distribution list

A screenshot of a list collector field. It shows four selected items in a row, each with an 'x' icon to its left: Abraham Lincoln, George Washington, Thomas Jefferson, and John Kennedy.

Members of distribution list

A screenshot of a list collector field dropdown menu. The search input contains 'john'. The dropdown list shows the following options: John Adams, John Bohnhamn, John Chipley, John Kennedy (highlighted in blue), John Retak, Johnie Minaai, and Johnnie Rheaves.

**Checkbox:** Checkboxes are commonly grouped together with a label. Checkboxes allow a user to select multiple options from a list.

Accessories required

- Laptop bag
- Kensington lock
- Privacy screen
- Universal power adapter

Another use for a checkbox is for a user acknowledgement.

- \*  I have read the Travel Policy

**Date/Time:** Also known as a **date picker**. The user must enter a valid date and time. The user can type in a value manually, or they can use the date picker to search for and select a date and time. The format and time zone are automatically converted to the user's preference (if specified), or defaults to the system default settings.

A **Date** field works the same but excludes the time input.

Start date

19-03-2019 09:00:00
📅

📅

📅

< **March 2019** >

Su	Mo	Tu	We	Th	Fr	Sa
24	25	26	27	28	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

🕒

📅

^  
  
19  
  
v

:

^  
  
14  
  
v

**Duration:** Allows the user to specify a duration of time in Days, Hours, Minutes and Seconds.

Outage window

Days	1	Hours	12	0	0
------	---	-------	----	---	---

**HTML:** A HTML field allows the user to enter **formatted text**. It can contain images. The user can copy-and-paste content from Microsoft Word. Or the user can type in new content and use the available controls to format it.

Description of service

**Paragraph** ▼ **B** *I* [List Icons] [Link Icon] [Unlink Icon] [Image Icon] {s} <>

**Lorem ipsum dolor sit amet**

Consectetur adipiscing elit. Sed elementum lacus at nunc dapibus, quis maximus mi iaculis. Nunc sollicitudin pharetra nunc. Nam sit egestas erat, id auctor tellus. Aenean facilisis sapien volutpat tincidunt volutpat.

- Nulla sit amet libero pharetra
- Porta erat fringilla
  - Tincidunt urna
- Posuere augue enim

**Imperdiet:** In faucibus dignissim. Etiam viverra condimentum ante at lacinia. Morbi vehicula dapibus erat a pulvinar. Donec ut molestie dui, at scelerisque nisi.

**Masked:** Commonly known as a password field. It can be used for any sensitive information. You can specify access roles to control who can see the data. As you type into the field, the value will be hidden by default. You can click the SHOW button on the right to see the value in plain text.

Password

..... [SHOW](#)

Password

yzt5WmV@VE7a [HIDE](#)

**Multiple Choice:** Also known as **radio buttons**. Use this type when the user must select exactly 1 option from a short, pre-defined list (about 6 or less). The options can be displayed horizontally or vertically.

iPhone XS Color

Silver  
 Space Gray  
 Gold

**Numeric scale:** Commonly used for a Likert scale. The user must select a number in the scale.

How satisfied are you with our service?

1  2  3  4  5

**Lookup Multiple Choice:** This field type combines a **reference** field and a **multiple-choice** list. The options are dynamically generated based on a list of records you specify in ServiceNow. The records must all be on one table. Examples can include Companies, Departments, Locations, etc. The user must select 1 option from the list. The options can be displayed horizontally or vertically. This type should only be used if the number of options is limited (about 6 or less).

Department

- Customer Support
- Development
- Finance
- HR
- IT
- Product Management
- Sales

**Lookup Select Box:** This field type combines a **reference** field and a **select box**. The options are dynamically generated based on a list of records you specify in ServiceNow. The records must all be on one table. Examples can include Companies, Departments, Locations, etc. The user must select 1 option from the list. This type should only be used if the number of options is limited (about 15 or less).

Department

Department

Customer Support	▲
<input type="text"/>	🔍
Customer Support	
Development	
Finance	
HR	
IT	
<b>Product Management</b>	
Sales	

**Yes / No:** This type is just a shortcut for a **select box** with 2 options; **Yes** and **No**.

Have you completed the training?

### Example Macros (custom widgets):

A macro is custom code. The possibilities of what you can do with macros are almost limitless. They can be simple or complex. The following is a few examples of what is possible with macros.

#### Static text and image

## Kevin Bacon

Kevin Norwood Bacon (born July 8, 1958) is an American actor and musician. His films include musical-drama film *Footloose* (1984), the controversial historical conspiracy legal thriller *JFK* (1991), the legal drama *A Few Good Men* (1992), the historical docudrama *Apollo 13* (1995), and the mystery drama *Mystic River* (2003). Bacon is also known for taking on darker roles such as that of a sadistic guard in *Sleepers* (1996) and troubled former child abuser in a critically acclaimed performance in *The Woodsman* (2004). He is equally prolific on television, having starred in the Fox drama series *The Following* (2013–2015). For the HBO original film *Taking Chance* (2009), Bacon won a Golden Globe Award and a Screen Actors Guild Award, also receiving a Primetime Emmy Award nomination. *The Guardian* named him one of the best actors never to have received an Academy Award nomination. In 2003, Bacon received a star on the Hollywood Walk of Fame for his contributions to the motion pictures industry.

Bacon has become associated with the concept of interconnectedness (as in social networks), having been popularized by the game "Six Degrees of Kevin Bacon". In 2007, he created SixDegrees.org, a charitable foundation.

### Early life and education

Bacon, the youngest of six children, was born and raised in a close-knit family in Philadelphia. His mother, Ruth Hilda (née Holmes; 1916–1991), taught at an elementary school and was a liberal activist, while his father, Edmund Norwood Bacon (May 2, 1910 – October 14, 2005), was a well-respected architect and a prominent Philadelphian who was Executive Director of the Philadelphia City Planning Commission for many years.

At age 16, in 1975, Bacon won a full scholarship to and attended the Pennsylvania Governor's School for the Arts at Bucknell University, a state-funded five-week arts program at which he studied theater under Dr. Glory Van Scott. The experience solidified Bacon's passion for the arts.

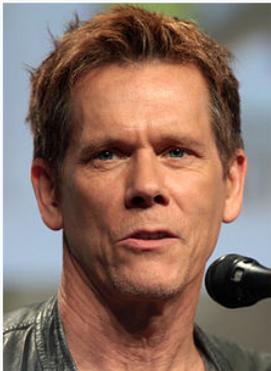
### Acting career

#### Early work

Bacon left home at age 17 to pursue a theater career in New York City, where he appeared in a production at the Circle in the Square Theater School. "I wanted life, man, the real thing", he later recalled to Nancy Mills of *Cosmopolitan*. "The message I got was 'The arts are it. Business is the devil's work. Art and creative expression are next to godliness.' Combine that with an immense ego and you wind up with an actor." Bacon's debut in the fraternity comedy *National Lampoon's Animal House* (1978) did not lead to the fame he had sought, and Bacon returned to waiting tables and auditioning for small roles in theater. He briefly worked on the television soap operas *Search for Tomorrow* (1979) and *Guiding Light* (1980–81) in New York.

#### 1980s

In 1980, he had a prominent role in the slasher film *Friday the 13th*. Some of his early stage work included *Getting Out*, performed at New York's Phoenix Theater, and *Flux*, at Second Stage Theatre during their 1981–1982 season.



Bacon in 2014

<b>Born</b>	Kevin Norwood Bacon July 8, 1958 (age 60) Philadelphia, Pennsylvania, U.S.
<b>Occupation</b>	Actor, director, producer, musician
<b>Years active</b>	1978–present
<b>Spouse(s)</b>	Kyra Sedgwick (m. 1988)
<b>Children</b>	2, including Sosie Bacon
<b>Parent(s)</b>	Edmund Bacon (father)
<b>Relatives</b>	Michael Bacon (brother)
<b>Website</b>	baconbros.com

### Multi-row with CSV Loader

Attach a CSV file to the catalog item. Click a button and the table is populated from the CSV file.

#### Firewall Rules

Source	Destination	Service	BI-Directional	
TDC1PMID01	TDC2PMID02	AD_ESXI	Single Direction	

Load CSV
+ Add Rule

A model displays errors with individual rows:

The following rows were not added due to missing or invalid information

	Source	Destination	Service	Bi-Directional
1	TDC1PNTA0111	TDC1PACMS0111	PXE_boot	Single Direction

OK

**Dynamic widget with client-side web service calls for selection options and inputs**

You select a subnet from the CMDB, then a web service call to an external system (IPAM) retrieves the available IP addresses for that subnet. The IP addresses from the external system are populated into the widget. You then select which IP address(es) you want to reserve. It is a real-time integration between two systems to ensure accurate data synchronization. The form changes dynamically depending on what subnet you select on the form, and the data for that subnet in the external system.

\* Subnet

10.118.8.0/24

\* Selection

Manual/multiple selection

Available IP Address(es)

IP Address	Host name
<input checked="" type="checkbox"/> 10.118.8.10	testa
<input type="checkbox"/> 10.118.8.11	
<input type="checkbox"/> 10.118.8.12	
<input checked="" type="checkbox"/> 10.118.8.13	testb
<input type="checkbox"/> 10.118.8.14	
<input type="checkbox"/> 10.118.8.15	
<input type="checkbox"/> 10.118.8.16	

2 IP addresses selected

## Appendix D: Type Specifications

Use this table as a reference of the configuration options you need to provide for each variable in the next table, depending on its type.

Variable Type	Required configuration	Optional configuration	Guidance
All types		Mandatory when: Read-only when: Visible when: Default Value: Help tag: Help text: Help always expanded:	All field types have these standard optional configurations.
Single Line Text (use for numbers)		Validation regex: Input validation: Placeholder:	Notes 1, 2
Multi Line Text		Placeholder:	Note 2
Select Box	Options:	Include none:	Notes 3, 5
Reference	Table:	Filter:	Note 4
Date		Input validation: Placeholder:	Notes 1, 2
Date/Time		Input validation: Placeholder:	Notes 1, 2
Checkbox			Note 5
List Collector	Table:	Filter:	Like a reference field, but you can select multiple records. Note 4.
Duration		Input validation:	Note 1
HTML			
Masked (password)		Use confirmation: Use encryption:	'Use confirmation' creates a second input field that asks the user to re-enter the masked value. This is largely redundant with the introduction of the SHOW/HIDE feature in the London release. 'Use encryption' stores the value in the database encrypted
Multiple Choice (radio buttons)	Options:	Direction: Don't select first choice:	Direction can be down or across
Numeric scale (radio buttons)	Min: Max:	Don't select first choice:	

Variable Type	Required configuration	Optional configuration	Guidance
Lookup Select Box	Table: Value field: Label field:	Filter: Include none:	Uses existing records to generate choices in a select box. Notes 3, 4
Lookup Multiple Choice	Table: Value field: Label field:	Filter: Include none: Direction:	Uses existing records to generate choices in a select box. Note 4
Yes / No		Include none:	It's a select box with 2 options. Note 3
Label			Like a heading
Macro	Content:		Note 6

**Notes:**

1. Input validation uses a script. You must clearly define what you require. E.g. "Date must not be in the past"
2. A placeholder is grayed-out text in an input field used as an instruction or example input. It disappears once the user starts typing into the input.
3. Include none: This adds the "-- None --" option. If false, you must specify a default value.
4. A reference (or lookup) field selects an existing record.
  - a. Table: The type of record. E.g. User, or Company
  - b. Filter: A filter for the records, if you only want to show some records. E.g. Active users only, or Users from the ACME company.
5. For select boxes and checkboxes, it is possible to associate a price and recurring price to the option.
6. A macro is custom code. It can be almost anything, from an image or block of text, to an interactive widget. Speak to your Technical Consultant if you have requirements that cannot be met with the use of standard input fields.

**Permissions:**

This feature was introduced in the London release. You can define access roles on individual variables to control who can read and edit them. This is useful for sensitive information, like passwords, or personal information. Please specify these optional configurations for any variables that require them:

- **Create Roles:** User can edit the variable on the catalog item. If the user doesn't have the role, the variable will be read-only on the catalog item.
- **Write Roles:** User who can edit the variable in the Variable Editor on the requested item. If the user doesn't have the role, the variable will be read-only in the variable editor.
- **Read Roles:** User can see the variable on the catalog item and on the requested item. If the user doesn't have the role, the variable will not be shown.

**Other Types:**

There are a few other field types not listed above: **IP Address, URL, Email.**

It is recommended that these variable types are not used. There work by using input validation only when the form is submitted (Validation Scripts). This results in a poor user experience. If the user inputs an invalid value, they don't find out until they see an error message when attempting to submit the form. It is recommended to instead use standard String fields with client-side input validation.



## Appendix E: Multi-Row Variable Sets

Multi-row variable sets are used for multi-row inputs. You can add as many items (rows) as you like when completing the catalog item. The header row is the variables. Each row after it is a group of inputs. The user can edit or delete individual rows. When the user clicks the 'Add' button, they see a popup modal (form) to capture the inputs for the next row.

You cannot include the following variable types in a multi-row variable set:

- HTML
- Label
- List Collector
- Macro

Example: You can use a multi-row variable set to request multiple firewall access rules:

\* Requester

Geoffrey Sage

Firewall Rules

Add Remove All

Actions	Source CI	Source IP address	Destination CI	Destination IP address	Port	Protocol
	TDC1PWEB001	10.0.1.1	TDC1PAPP001	10.0.0.1	443	TCP
	TDC1PWEB002	10.0.1.2	TDC1PAPP002	10.0.0.2	443	TCP

Add Row

Source CI

TDC1PWEB001

\* Source IP address

10.0.1.1

Destination CI

TDC1PAPP001

\* Destination IP address

10.0.0.1

\* Port

443

\* Protocol

TCP

Close Add

## Appendix F: Example Inputs

Scenario: New iPhone Request

### Approvals

Order	Approver (User or Group)	Conditions
1	Requester's manager	Exclude C-level executives
2	Workplace Services	Always
2	Mobility Support	Always

### Catalog Tasks

Order	Assignment group	Short description	Description	Condition
1	Mobility Support	New mobile device	Allocate new iPhone Install AirWatch and register device	Always
2	Workplace Services	Deliver mobile device	Deliver mobile device to user. Update CMDB.	Always
3	Desktop Support	Setup email on mobile device	Assist user is setting up email on mobile device	Only if 'Do you require assistance with setting up email?' is Yes

### Variable Definitions

Order	Type	Question	Required configuration	Optional configuration
1	Reference	Requested for	Table: User	Filter: Active users only Mandatory when: Always
2	Select Box	Model	Options: 1. iPhone XS 2. iPhone XS Max 3. iPhone XR	Default value: iPhone XS Include none: No
3	Select Box	Color (XS)	Options: 1. Silver 2. Space Gray 3. Gold	Mandatory when: Model is 'iPhone XS' or 'iPhone XS Max' Visible when: Model is 'iPhone XS' or 'iPhone XS Max'
4	Select Box	Color (XR)	Options: 1. Blue 2. White 3. Black 4. Yellow 5. Coral 6. Red	Mandatory when: Model is 'iPhone XR' Visible when: Model is 'iPhone XR'
5	Multi Line String	Business justification		Mandatory when: Always Help tag: More Information Help text: Please explain why you need this item to perform your work duties. Help is always expanded: Yes
6	Yes / No	Do you require assistance with setting up email?		Include none: Yes