

API for Configured Service Products v1

(Direct Sales)

Overview

API General Info

Response Content Type

It is possible to switch between `json` and `xml` response types by setting an `Accept` header to either `application/json` or `application/xml` respectively.

Successful Responses

Response Codes

- **200** - The request was executed successfully and the server returned some data. The return content type is specified inside a response header called `content-type`. Example content types are `application/xml`, `application/json`, `application/zip` and `text/plain`.
- **204** - The request was executed successfully and the server returned no data. If the `Location` header was present then the server responded with a redirect.

Error Responses

If the API call resulted in an error then the error code will be returned along with the error object in the response body. The error object contains the attributes listed below:

- **type** - type of the error
- **cause** - the root cause of the error
- **message** - message containing details of the related error
- **uuid** - a unique identifier of the error which also may appear in the exception logs
- **timestamp** - the time of the error

Note: For chunked responses, the socket will be closed prematurely if an error occurs after the initial chunk containing the status code has been sent.

Response Codes

- **400** - The request contains invalid parameters or there are invalid settings. Consult the error message and/or check Administration for invalid settings.
- **401** - The user is not authenticated.
- **403** - The user is not authorized access to the specified endpoint.
- **404** - The specified endpoint does not exist or a request parameter is invalid. Consult the error message.
- **405** - The specified endpoint does not support the requested operation. Consult the error message.
- **409** - The specified endpoint is in a state incompatible with the requested operation. Consult the error message.
- **500** - Unknown error occurred while processing the request. Consult the CPQ logs for more information.
- **504** - The specified concurrent calls limit was exceeded and the server was not able to serve the response in a specified timeout limit. That error is always served with the xml body containing the description.

Endpoints by Category

BoM

GET /api/configuredservice/v1/[configurationId]/bom

Retrieve current service configuration result.

Parameter	Type	Description
configurationId	String	The reference to the service configuration.
<i>Result</i>	ServiceConfigurationResultAPI	The result from the configuration.

Price Lists Assignment

GET /api/configuredservice/v1/[configurationId]/pricelists-assignment

Retrieve current price lists assignment for a configured service.

Parameter	Type	Description
configurationId	String	The reference to the service configuration.
<i>Result</i>	PriceListsAssignment	The current price lists assignment.

**POST /api/configuredservice/v1/[configurationId]/pricelists-assignment?
assignment=[priceListsAssignment]**

Update the price lists assignment for a configuration.

Parameter	Type	Description
configurationId	String	The weak reference to the service configuration to update.
assignment	PriceListsAssignment	The new price lists assignment.
<i>Result</i>	Empty	

Product Table Assignments

GET /api/configuredservice/v1/[configurationId]/product-table-assignments

Return the product table assignments for a configured service.

Parameter	Type	Description
configurationId	String	The weak reference to the service configuration.
<i>Result</i>	ProductTableAssignments	ProductTableAssignments The assignments of product tables to service products for the configured service.

**POST /api/configuredservice/v1/[configurationId]/product-table-assignments?
assignments=[assignments]**

Update the product table assignments for a configured service.

Parameter	Type	Description
configurationId	String	The weak reference to the service configuration.
assignments	ProductTableAssignments	The new assignments of product tables to service

Parameter	Type	Description
		products for the configured service.
<i>Result</i>	Empty	

Scope of Supply

GET /api/configuredservice/v1/[configurationId]/scope-of-supply

Return the scope of supply for the configured service. Note, the scope of supply is updated after a configuration is saved. All prices are in base currency.

Parameter	Type	Description
configurationId	String	
<i>Result</i>	ScopeOfSupply	

Task Assignments

GET /api/configuredservice/v1/[configurationId]/task-assignments

Return the task assignments for a configured service.

Parameter	Type	Description
configurationId	String	The weak reference to the service configuration.
<i>Result</i>	TaskAssignments	TaskAssignments The task assignments.

POST /api/configuredservice/v1/[configurationId]/task-assignments?assignments=[assignments]

Update the task assignments for a configured service.

Parameter	Type	Description
configurationId	String	The weak reference to the service configuration.
assignments	TaskAssignments	The new task assignments. 'assignmentDetails1' and

Parameter	Type	Description
		'assignmentDetails2' are limited to 255 characters.
<i>Result</i>	Empty	

Data Types by Category

BoM

ServiceConfigurationResultAPI

```
{
  "scheduledTaskProducts" : [
    {
      "productName" : "",
      "productDescription" : "",
      "groupId" : "",
      "events" : [
        {
          "name" : "",
          "date" : "",
          "taskStartDate" : "",
          "taskEndDate" : "",
          "interval" : 1,
          "meters" : [
            {
              "assetId" : "",
              "meterId" : "",
              "tasks" : [
                {
                  "taskId" : "",
                  "date" : "",
                  "quantity" : 1.0,
                  "meterValue" : 1,
                  "includeLabor" : false,
                  "includeMaterial" : false,
                  "assignmentDetails1" : "",
                  "assignmentDetails2" : ""
                },
                ...
              ]
            },
            ...
          ],
          "laborAggregate" : {
            "minutesPerTrade" : {
              "key" : 1.0
            }
          },
          "visits" : [
            {
              "allocations" : [
                {
                  "days" : 1,
                  "normalHours" : 1,
                  "overtimeHours" : 1,
                  "travelHours" : 1,
                  "totalCost" : 1.0,
                }
              ]
            }
          ]
        }
      ]
    }
  ]
}
```

```
        "totalPrice" : 1.0,
        "expenseCost" : 1.0,
        "expensePrice" : 1.0,
        "role" : "",
        "priceCategory" : ""
    },
    ...
]
},
...
],
"routineMaintenance" : [
{
    "assetId" : "",
    "meterId" : "",
    "tasks" : [
        {
            "taskId" : "",
            "date" : "",
            "quantity" : 1.0,
            "meterValue" : 1,
            "includeLabor" : false,
            "includeMaterial" : false,
            "assignmentDetails1" : "",
            "assignmentDetails2" : ""
        },
        ...
    ]
},
...
],
"additionalTasks" : [
{
    "assetId" : "",
    "meterId" : "",
    "tasks" : [
        {
            "taskId" : "",
            "date" : "",
            "quantity" : 1.0,
            "meterValue" : 1,
            "includeLabor" : false,
            "includeMaterial" : false,
            "assignmentDetails1" : "",
            "assignmentDetails2" : ""
        }
    ]
}
```

```
        },
        ...
    ]
},
...
],
"materialAllocations" : [
    {
        "material" : "",
        "materialPrice" : 1.0,
        "materialCost" : 1.0,
        "priceCategory" : ""
    },
    ...
]
},
...
],
"laborAndMaterialProducts" : [
    {
        "groupId" : "",
        "productName" : "",
        "productDescription" : "",
        "roleAllocations" : [
            {
                "normalHours" : 1,
                "overtimeHours" : 1,
                "travelHours" : 1,
                "laborCost" : 1.0,
                "laborPrice" : 1.0,
                "expenseCost" : 1.0,
                "expensePrice" : 1.0,
                "role" : "",
                "priceCategory" : "",
                "dynamic" : false,
                "roleDescription" : ""
            },
            ...
        ],
        "materialAllocations" : [
            {
                "material" : "",
                "materialPrice" : 1.0,
                "materialCost" : 1.0,
                "priceCategory" : ""
            },
            ...
        ],
    },
    ...
],
```

```
"directItems" : [
  {
    "itemId" : "",
    "description" : "",
    "quantity" : 1.0,
    "priceCategory" : ""
  },
  ...
]
},
...
],
"consumableProductProducts" : [
  {
    "groupId" : "",
    "productName" : "",
    "productDescription" : "",
    "consumableItems" : [
      {
        "itemId" : "",
        "assetId" : "",
        "groupId" : "",
        "itemDescription" : "",
        "quantity" : 1.0
      },
      ...
    ],
    "aggregatedItems" : [
      {
        "itemId" : "",
        "assetId" : "",
        "groupId" : "",
        "itemDescription" : "",
        "quantity" : 1.0
      },
      ...
    ],
    "postAggregatedItems" : [
      {
        "itemId" : "",
        "assetId" : "",
        "groupId" : "",
        "itemDescription" : "",
        "quantity" : 1.0
      },
      ...
    ]
  },
  ...
]
```

```
...
],
"catalogProductProducts" : [
  {
    "groupId" : "",
    "productName" : "",
    "productDescription" : "",
    "catalogItems" : [
      {
        "itemId" : "",
        "itemDescription" : "",
        "quantity" : 1.0,
        "priceCategory" : ""
      },
      ...
    ]
  },
  ...
],
"trainingProductProducts" : [
  {
    "groupId" : "",
    "productName" : "",
    "productDescription" : "",
    "items" : [
      {
        "name" : "",
        "description" : "",
        "occasions" : 1,
        "activityHours" : 1,
        "priceCategory" : ""
      },
      ...
    ]
  },
  ...
],
"laborSummary" : [
  {
    "role" : "",
    "normalHours" : 1,
    "overtimeHours" : 1,
    "travelHours" : 1,
    "totalHours" : 1,
    "products" : [
      {
        "name" : "",
        "description" : "",
```

```
        "normalHours" : 1,
        "overtimeHours" : 1,
        "travelHours" : 1,
        "totalHours" : 1
    },
    ...
]
},
...
]
```

Price Lists Assignment

PriceListsAssignment

```
JSON XML
{
  "priceListIdForMaterialsListPrice" : "",
  "priceListIdForMaterialsCost" : "",
  "priceListIdForLaborListPrice" : "",
  "priceListIdForLaborCost" : ""
}
```

Product Table Assignments

ProductTableAssignments

```
JSON XML
{
  "assignments" : [
    {
      "productName" : "",
      "productTableId" : ""
    },
    ...
  ]
}
```

Scope of Supply

ScopeOfSupply

```
{
  "selectedServicePackage" : "",
  "includedServiceProducts" : [
    {
      "name" : "",
      "description" : "",
      "type" : "",
      "scope" : ""
    },
    ...
  ],
  "scheduledTaskProducts" : [
    {
      "productName" : "",
      "groupId" : "",
      "schedulingType" : "",
      "calendarInterval" : "",
      "mainAsset" : "",
      "mainMeter" : "",
      "meterInterval" : 1,
      "maxStopDays" : 1,
      "preInspectionType" : "",
      "preInspectionRole" : "",
      "useMinimumHours" : false,
      "allocateFullDays" : false,
      "minimumHours" : 1,
      "features" : [
        {
          "name" : "",
          "value" : ""
        },
        ...
      ],
      "materials" : [
        {
          "material" : "",
          "cost" : 1.0,
          "price" : 1.0
        },
        ...
      ],
      "eventOverheadActivities" : [
        {
          "activity" : "",
          "description" : "",
          "hours" : 1,
          "role" : ""
        }
      ]
    }
  ]
}
```

```
    },
    ...
  ]
},
...
],
"laborAndMaterialProducts" : [
  {
    "productName" : "",
    "groupId" : "",
    "assetId" : "",
    "roles" : [
      {
        "role" : "",
        "description" : "",
        "dynamic" : false,
        "normalHours" : 1,
        "overtimeHours" : 1,
        "travelHours" : 1,
        "expenseCost" : 1.0,
        "expensePrice" : 1.0
      },
      ...
    ],
    "materials" : [
      {
        "material" : "",
        "cost" : 1.0,
        "price" : 1.0
      },
      ...
    ],
    "features" : [
      {
        "name" : "",
        "value" : ""
      },
      ...
    ],
    "directItems" : [
      {
        "itemId" : "",
        "quantity" : 1.0
      },
      ...
    ]
  },
  ...
]
```

```
],
"consumableProducts" : [
  {
    "productName" : "",
    "groupId" : "",
    "assetId" : "",
    "items" : [
      {
        "itemId" : "",
        "description" : "",
        "features" : {
          "key" : ""
        },
        "quantity" : 1.0
      },
      ...
    ],
    "features" : [
      {
        "name" : "",
        "value" : ""
      },
      ...
    ]
  },
  ...
],
"catalogProducts" : [
  {
    "productName" : "",
    "items" : [
      {
        "itemId" : "",
        "description" : "",
        "features" : {
          "key" : ""
        },
        "quantity" : 1.0
      },
      ...
    ],
    "features" : [
      {
        "name" : "",
        "value" : ""
      },
      ...
    ]
  }
]
```

```
    },
    ...
  ],
  "trainingProducts" : [
    {
      "productName" : "",
      "items" : [
        {
          "description" : "",
          "occasions" : 1,
          "delivery" : "",
          "digitalPlatform" : "",
          "location" : "",
          "travelHours" : 1,
          "expenseCost" : 1.0,
          "expensePrice" : 1.0,
          "activities" : [
            {
              "activity" : "",
              "description" : {
                "defaultValue" : "",
                "translations" : {
                  "key" : ""
                }
              }
            },
            {
              "normalHours" : 1,
              "overtimeHours" : 1
            }
          ],
          ...
        },
        ...
      ],
      "features" : [
        {
          "name" : "",
          "value" : ""
        },
        ...
      ]
    },
    ...
  ]
},
...
],
"includedAssets" : [
  {
    "groupId" : "",
    "isCustom" : false,
    "assetId" : "",
  }
]
```

```
"description" : "",
"attributes" : {
  "key" : ""
},
"meters" : [
  {
    "meterId" : "",
    "description" : "",
    "meterStartValue" : 1,
    "meterEndValue" : 1,
    "contractIncrease" : 1,
    "lastReadingDate" : "",
    "custom" : {
      "key" : ""
    }
  },
  ...
]
},
...
],
"roles" : [
  {
    "roleId" : "",
    "label" : "",
    "trades" : [
      "",
      ...
    ],
    "chargeable" : false,
    "normalHours" : 1,
    "maxQuantity" : 1,
    "overtimeHours" : 1,
    "dailyTravelHours" : 1,
    "longTravelHours" : 1,
    "attributes" : {
      "key" : ""
    },
    "dailyExpenses" : [
      {
        "name" : "",
        "value" : 1.0
      },
      ...
    ],
    "dailyExpensesSum" : 1.0,
    "eventExpenses" : [
      {
```

```
        "name" : "",
        "value" : 1.0
    },
    ...
],
"eventExpensesSum" : 1.0
},
...
]
}
```

Task Assignments

TaskAssignments

```
{
  "assignments" : [
    {
      "asset" : "",
      "meter" : "",
      "firstInterval" : 1,
      "everyInterval" : 1,
      "exceptInterval" : 1,
      "intervalOffset" : 1,
      "taskId" : "",
      "includeLabor" : false,
      "includeMaterial" : false,
      "disabled" : false,
      "assignmentDetails1" : "",
      "assignmentDetails2" : ""
    },
    ...
  ],
  "calendarAssignments" : [
    {
      "asset" : "",
      "taskId" : "",
      "interval" : "YEARLY", // DAILY, WEEKLY, MONTHLY, QUARTERLY, H
      "includeLabor" : false,
      "includeMaterial" : false,
      "disabled" : false,
      "assignmentDetails1" : "",
      "assignmentDetails2" : ""
    },
    ...
  ],
  "directTaskAssignments" : [
    {
      "asset" : "",
      "taskId" : "",
      "date" : "",
      "quantity" : 1.0,
      "includeLabor" : false,
      "includeMaterial" : false,
      "disabled" : false,
      "assignmentDetails1" : "",
      "assignmentDetails2" : ""
    },
    ...
  ]
}
```

