

# Achieving flexibility in contract billing plans (C4C and S/4 HANA)

We all know the complexities involved in keeping on top of contracts in a service business and the kind of flexibility that is needed in invoicing contracts, which is critical to revenue and cash flow, is not well understood.

In most businesses, the frequency of invoices can vary by different parameters. For example, if it's a one-time transaction then there is only one invoice generated. Whereas there might be a long duration in the transaction where a number of invoices are generated at different timespans based on various factors.

When it is a sales contract then the rebate mechanism will work on the frequency basis e.g; quarterly, monthly etc.

In the case of service contracts, the business may charge the customer either on a predetermined frequency or on a milestone basis. This depends on the billing plan agreed with the customer.

A billing plan includes details about payments which specifies how frequently the customer will be charged. Using a billing plan, you can bill for a service or product at regular time intervals known as periodic billing, or at specific dates/milestones predefined in the system which is called as milestone billing.

We briefly introduce the concept of the SAP billing plans, something that would be well known to the SD and CRM gurus dealing in contracts.

A periodic billing plan is used in the scenario where the fixed amount is to be billed at specific intervals within billing plan dates. In the case of a service contract, it is the contract's start date and end date, based on the interval type (annual, monthly, weekly etc.). For example, in the screenshot below, the billing plan for service item 20 is for 2 years and the interval is annual. So, it will create two billing plan items for item 20.

Net value 2,000.00 GBP

Billing plan

BillingPlanType Y3 AD Annual advance InAdvance

Start date 01.11.2016 11 Contract Start Date Dates from

End date 31.10.2018 09 Contract End Date Dates until

Horizon  Corr  Cal-Id

Settlement	To	Billing date	Bill. value	Crcy	Block	BillSt	Man.	Cor	PayT	DCat	Billing Type	Price calc.
<input checked="" type="checkbox"/>	01.11.2016	31.10.2017	01.11.2017	1,000.00	GBP	A	<input type="checkbox"/>	<input type="checkbox"/>		01		
<input checked="" type="checkbox"/>	01.11.2017	31.10.2018	01.11.2018	1,000.00	GBP	A	<input type="checkbox"/>	<input type="checkbox"/>		01		
<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>				
<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>				
<input checked="" type="checkbox"/>							<input type="checkbox"/>	<input type="checkbox"/>				

Conditions Create Dates

The main disadvantage of this billing plan is - it is not possible to change the billing plan items' settlement dates and value. If we assume that if the customer for which the above service document is created is ready to pay £1500 for the first billing cycle then, in such case, the system is not flexible enough to incorporate this scenario.

Curious to know how this can be handled? Then hold on for a moment till we discuss the next billing plan type - milestone billing.

Milestone billing includes dividing the total billing amount in multiple billing dates based on a predefined billing plan which is also known as a reference billing plan. Whenever a milestone is reached as defined in the system, the customer is charged as per the project cost considering a predefined billing percentage in the referenced (or configured) bill plan. As mentioned, the milestone billing plan works based on the reference billing plan. The reference billing plan contains the master data and the billing plan items. When this plan is referred to in any of the service documents, then the related dates and the net amount to be billed is calculated.

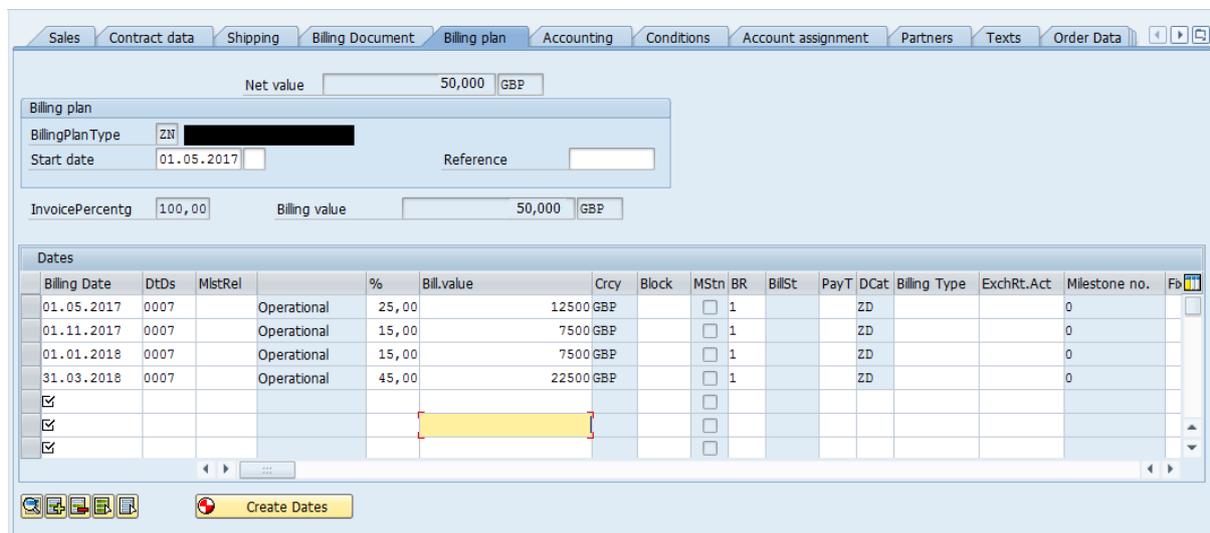
For example, the reference billing plan contains the billing plan details and the Billing Request Items (BRIs) as follows:

- Billing plan type: milestone
- Reference billing plan start date: 01.01.2016
- Reference billing plan net amount: £ 100,000

Let's consider that here the milestone is "percentage of project completion" i.e. the customer will be charged based on the progress of the project and consequently the billing request items would look like:

Project completion (in %)	% of total amount to be billed	Amount
10 %	15 %	£ 15000
35%	25%	£ 25000
60 %	15%	£ 15000
100 %	45%	£ 45000

When a service contract uses the above billing plan as a reference, then the billing which will be generated will look like:



The screenshot shows the SAP Billing plan configuration interface. At the top, there are tabs for Sales, Contract data, Shipping, Billing Document, Billing plan, Accounting, Conditions, Account assignment, Partners, Texts, and Order Data. The 'Billing plan' tab is active, showing a 'Net value' of 50,000 GBP. Below this, there are fields for 'Billing plan type' (set to ZN), 'Start date' (01.05.2017), and 'Reference'. Further down, 'InvoicePercentg' is set to 100,00 and 'Billing value' is 50,000 GBP. The main part of the screen is a table titled 'Dates' with columns: Billing Date, DtDs, MstRel, %, Bill.value, Crcy, Block, MStn, BR, BillSt, PayT, DCat, Billing Type, ExchRt.Act, Milestone no., and Fb. The table contains four rows of data corresponding to the milestones in the table above. A yellow highlight is visible on the 'Bill.value' column for the 01.01.2018 row. At the bottom, there is a 'Create Dates' button.

Billing Date	DtDs	MstRel	%	Bill.value	Crcy	Block	MStn	BR	BillSt	PayT	DCat	Billing Type	ExchRt.Act	Milestone no.	Fb
01.05.2017	0007		Operational	25,00	12500 GBP		<input type="checkbox"/>	1			ZD			0	
01.11.2017	0007		Operational	15,00	7500 GBP		<input type="checkbox"/>	1			ZD			0	
01.01.2018	0007		Operational	15,00	7500 GBP		<input type="checkbox"/>	1			ZD			0	
31.03.2018	0007		Operational	45,00	22500 GBP		<input type="checkbox"/>	1			ZD			0	

So, as discussed in the previous billing plan type, this billing plan can allow users to edit the dates and the billing value.

At Gauri, one of our customers had a requirement where they can leverage the benefits of these two billing plans i.e. the customer wanted their billing plan to be periodic but there should be sufficient flexibility to edit the dates and billing value. Unfortunately, standard SAP doesn't support this. Consequently, we've built a custom solution that meets the expectations of your business. Let's have a look into the broader insights of the requirements of an individual business:

1. The source system of the contract creation is SAP hybris Cloud for Customer (C4C) and the backend system is S4 HANA. Both systems are integrated using SAP HCI.
2. The user will specify the required frequency in the SAP C4C system so that whenever the contract gets replicated from SAP C4C to S4 HANA, the whole amount should be divided in a frequency specified by SAP C4C user and based on that BRIs should get created in SAP S4 HANA.
3. Also, settlement dates and values should be editable in BRIs.

As discussed earlier, the standard periodic billing plan for the contract could have created the BRIs but it does not fulfil the requirement mentioned in point 3. And to incorporate point 3, if we would have opted for milestone billing, then we were not able to achieve the point 2.

So the only solution was to develop a custom solution that will leverage the functionality of both periodic and milestone billing plans. These required enhancements in SAP S/4 and SAP HCI. So finally, any of the service contracts that are replicated to S4 HANA from SAP hybris C4C will look like:

The screenshot shows the SAP Billing plan configuration interface. At the top, there are navigation buttons and a 'Config.' button. Below that, there are fields for 'Sales Document Item' (10), 'Item Category', and 'Maint. Contr. itm m/st'. The 'Billing plan' tab is selected, showing a 'Net value' of 3,000.00 GBP and a 'Billing value' of 3,000.00 GBP. The 'Billing plan' section includes 'BillingPlanType' (Y4), 'Start date' (04.07.2017), and 'InvoicePercentg' (0.00). Below this is a 'Dates' table with columns for Billing date, DtDs, MstRel, %, Bill.value, CrCY, Block, MStn BR, BillSt, PayT, DCat, Billing Type, ExchRt.Act, Milestone no., and Fb. The table contains 7 rows of data, all with a 'DtDs' of 0007 and a 'Bill.value' of 250.00 GBP. At the bottom, there are buttons for 'Create Dates' and 'Milestones'.

Billing date	DtDs	MstRel	%	Bill.value	CrCY	Block	MStn BR	BillSt	PayT	DCat	Billing Type	ExchRt.Act	Milestone no.	Fb
04.07.2017	0007			250.00	GBP		<input type="checkbox"/>	2	A	Y4			0	1
04.08.2017	0007			250.00	GBP		<input type="checkbox"/>	2	A	Y4			0	1
04.09.2017	0007			250.00	GBP		<input type="checkbox"/>	2	A	Y4			0	1
04.10.2017	0007			250.00	GBP		<input type="checkbox"/>	2	A	Y4			0	1
04.11.2017	0007			250.00	GBP		<input type="checkbox"/>	2	A	Y4			0	1
04.12.2017	0007			250.00	GBP		<input type="checkbox"/>	2	A	Y4			0	1
04.01.2018	0007			250.00	GBP		<input type="checkbox"/>	2	A	Y4			0	1

Here we can see that the above billing plan delivers the required result by mimicking a periodic billing plan in the structure of a milestone billing plan type. Therefore, billing has been generated periodically (in this case monthly as shown in the above screenshot) but it also allows users to edit the dates and billing values.

**P.S.** The involved systems in this enhancement were S4 HANA, SAP hybris Cloud for the customer, and SAP HCI