PCM MICROSERVICES

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# 

# INTRODUCTION

## Document Purpose

The document has been produced to provide detail and context around the migration of the current monolithic architecture of the PCM system to Microservices architecture.

# Approach

## Domain Driven Design

using object model first approach:

* Data presentation.
* How Data is divided into tables.
* How tables related to each other.
* Identify Models based on real word models

# Defining Domain Models

## Following the alphabetical order of the PCM schema tables

## Account Domain

The account domain comprises the following tables

* tblAccount
* tblAccountHistory
* tblAccountType
* tblAccountNonePostalConfirmation

## Sub Domains

* tbleCounterpartyDetails
* tblSettlmenetInstruction
* tblInboundMessage
* tblTrader
* tblUser

## Affirmation Domain

The affirmation domain comprises the following tables

* tblAffirmation
* tblAffirmationComment
* tblAffirmationStatus

## Sub Domains

* tblCommentType
* tblCounterpartyDetail
* tblCashFlowStatus
* tblUser

## Auto Matching Cash Flow Domain

The affirmation domain comprises the following tables

* tblAutoMatchingCashflowType
* tblAutoMatchingCounterpartyConfig
* tblAutoMatchingCounterpartyConfigCashflowStatus
* tblAutoMatchingCounterpartyConfigCashflowType
* tblAutoMatchingCounterpartyConfigExcludeValuationFunctionType]

## Sub Domains

* tblCounterpartyDetail
* tblUser

## Bank Account Domain

The affirmation domain comprises the following tables

* tblBankAccountType

## Sub Domains

* tblUser

## Book Domain

The affirmation domain comprises the following tables

* tblBookCode
* tblBookRegion

## Sub Domains

* tblUser

## Business Rule Domain

The business rule domain comprises the following tables

* tblBusinessRuleException
* tblBusinessRuleExceptionHistorical
* tblBusinessRuleStatus
* tblBusinessRuleValidation
* tblBusinessRuleValidationEvent

## Sub Domains

* tblCashFlow
* tblParameterizedType
* tblEntity
* tblUser

## Calendar Domain

The business rule domain comprises the following tables

* tblCalendar
* tblCalendarHoliday

## Sub Domains

* tblUser

## Cash Flow Domain

The cash flow domain comprises the following tables:

* tblCashFlow
* tblCashFlowAttribute
* tblCashFlowAttributeHistorical
* tblCashFlowAttributeMigrationTemp
* tblCashFlowComment
* tblCashFlowDerivedField
* tblCashFlowDistribution
* tblCashFlowForNetting
* tblCashFlowFrontOfficeData
* tblCashFlowHistorical
* tblCashflowMatchStatus
* tblCashFlowNotice
* tblCashFlowOwnerGroup
* tblCashFlowOwnerGroupEmail
* tblCashFlowOwnerGroupMapping
* tblCashFlowRelationship
* tblCashFlowRelationshipType
* tblCashFlowRemoved
* tblCashFlowSearchCriteria
* tblCashFlowSearchResultColumn
* tblCashFlowSearchStatistics
* tblCashFlowStatus
* tblCashFlowStatusHistorical
* tblCashFlowStructure
* tblCashflowTradeEventMatchCriteria
* tblCashflowTradeEventMatchCriteriaStatus
* tblCashflowTradeEventMatchCriteriaToParameterizedType
* tblCashFlowType
* tblCashFlowTypeExclusionType

## Sub Domains tables

* tblPaymentType
* tblTransaction
* tblTradeSystem
* tblEntity
* tblUser
* tblCommentType
* tblNettingDetail
* tblCounterpartyDetail
* tblDistribution
* tblCommunicationType
* tblTrader
* tblStrikeDetail
* tblDayCountConvention
* tblValuationFunctionType
* tblAccountingType
* tblSettlementDetail
* tblReportingType
* tblNotice
* tblNoticeType
* tblRelationshipType
* tblTradeSystem
* tblParameterizedType
* tblExclusionType

## Clearing option Domain

The clearing option domain comprises the following tables

* tblClearingOption

## Sub Domains

* tblUser

## Cls status Domain

The cls status domain comprises the following tables

* tblClsStatus

## Sub Domains

* tblUser

## Collection Date Domain

The clearing option domain comprises the following tables

* tblCollationDatetion
* tblCollationGroupProperties
* tblCollationKey
* tblCollationSetting
* tblCollationStatus
* tblCollationTrigger
* tblCollationType

## Sub Domains

* tblUser
* tblNoticeType
* tblNoticeStyle
* tblCounterpartyDetail

## Comment Domain

The clearing option domain comprises the following tables

* tblCommentType

## Sub Domains

* tblUser

## Communication type Domain

The clearing option domain comprises the following tables

* tblCommunicationType

## Sub Domains

* tblUser

## Coridor details Domain

The clearing option domain comprises the following tables

* CorridorDetail

## Sub Domains

* tblObservationRate
* tblCouponType

## Counter Party Domain

The counter party domain comprises the following tables:

* tblCounterpartyAlternateReference
* tblCounterpartyAlternateReference\_ACBSCP
* tblCounterpartyDetail
* tblCounterpartyDetailType
* tblCounterpartyName
* tblCounterpartyNettingExclusion
* tblCounterpartyPreference
* tblCounterpartyPreferenceType

## Sub Domains tables

* tblAlternateReferenceType
* tblRelationshipType
* tblUser

## Currency Domain

The currency domain comprises the following tables:

* tblCurrency

## Sub Domains tables

* tblUser

## Day Convention Domain

The day convention domain comprises the following tables:

* tblDayCountConvention

## Sub Domains tables

* tblUser

## Direction Domain

The direction domain comprises the following tables:

* tblDirection

## Sub Domains tables

* tblUser

## Distribution Domain

The distribution domain comprises the following tables:

* tblDistribution
* tblDistributionChannel
* tblDistributionChannelInformation
* tblDistributionChannelStatus
* tblDistributionChannelType
* tblDistributionDocument
* tblDistributionDocumentType
* tblDistributionEmail
* tblDistributionStatus

## Sub Domains tables

* tblCommunicationType
* tblUser

## Document Generation Domain

The distribution domain comprises the following tables:

* tblDocumentGenerationStatus
* tblDocumentGenerationTradeStatus
* tblDocumentumObjectIDMap

## Sub Domains tables

* tblSentMessage
* tblTrader
* tblUser

## Dtcc Exception Domain

The distribution domain comprises the following tables:

* tblDtccException
* tblDtccExceptionReason
* tblDtccReconciliation

## Sub Domains tables

* tblCashFlow
* tblTrader
* tblUser

## Email template Domain

The email template domain comprises the following tables:

* tblEmailTemplate

## Sub Domains tables

* tblUser

## End of file notification Domain

The end of file notification domain

* tblEndOfFileNotification
* tblEndOfFileNotificationCollationTrigger
* tblEndOfFileNotificationHistorical

## Sub Domains tables

* tblUser
* tblTradeSystem
* tblNoticeTye
* tblEntity
* tblMessageType
* tblCollationTrigger

## Entity Domain

The entity domain comprises the following tables:

* tblEntity
* tblEntityAccountingType
* tblEntityCollationGroup
* tblEntityCollationSetting
* tblEntityCollationSettingFeedName
* tblEntityCollationSettingValuationFunctionType
* tblEntitySetting

## Sub Domains tables

* tblSentMessage
* tblTrader
* tblUser

## Entity Domain

The entity domain comprises the following tables:

* tblEntity
* tblEntityAccountingType
* tblEntityCollationGroup
* tblEntityCollationSetting
* tblEntityCollationSettingFeedName
* tblEntityCollationSettingValuationFunctionType
* tblEntitySetting

## Sub Domains tables

* tblSentMessage
* tblTrader
* tblUser

## Evaluation context Domain

The evaluation context domain comprises the following tables:

* tblEvaluationContext

## Sub Domains tables

* tblUser

## Entity Domain

The entity domain comprises the following tables:

* tblEntity
* tblEntityAccountingType
* tblEntityCollationGroup
* tblEntityCollationSetting
* tblEntityCollationSettingFeedName
* tblEntityCollationSettingValuationFunctionType
* tblEntitySetting

## Sub Domains tables

* tblSentMessage
* tblTrader
* tblUser

## Exchange rate Domain

The exchangedomain comprises the following tables:

* tblExchangeRate
* tblExchangeRateLoad

## Sub Domains tables

* tblUser

## Exclusion type Domain

The exclusion type domain comprises the following tables:

* tblExclusionType

## Sub Domains tables

* tblUser

## Export report Domain

The entity domain comprises the following tables:

* tblExportReportColumn
* tblExportReportColumnUser

## Sub Domains tables

* tblUser

## Inbound message Domain

The entity domain comprises the following tables:

* tblInboundMessage
* tblInboundMessageArchive
* tblInboundMessageCompressed
* tblInboundMessageSequence
* tblInboundMessageVersion
* tblEntityCollationSettingValuationFunctionType
* tblEntitySetting

## Sub Domains tables

* tblMessageType
* tblTradeSystem
* tblEntity
* tblAccountingType
* tblUser

## Inbound message Domain

The entity domain comprises the following tables:

* tblInboundMessage
* tblInboundMessageArchive
* tblInboundMessageCompressed
* tblInboundMessageSequence
* tblInboundMessageVersion
* tblEntityCollationSettingValuationFunctionType
* tblEntitySetting

## Sub Domains tables

* tblMessageType
* tblTradeSystem
* tblEntity
* tblAccountingType
* tblUser

## ISO currency Domain

The entity domain comprises the following tables:

* tblISOCurrency

## Sub Domains tables

* tblUser

## KPI Metric Domain

The entity domain comprises the following tables:

* tblKPIMetric
* tblKPIMetricRun
* tblKPIMetricType

## Sub Domains tables

* tblUser

## Maintenance activity Domain

The entity domain comprises the following tables:

* tblMaintenanceActivity

## Message Domain

The message domain comprises the following tables:

* tblMessageEvent
* tblMessageStatus
* tblMessageType

## Sub Domains tables

* tblUser

## Netting Domain

The Netting domain comprises the following tables:

* tblNettingDetail
* tblNettingLevelConfig
* tblNettingLevelConfigNtrm
* tblNettingLevelConfigProduct
* tblNettingLevelType

## Sub Domains tables

* tblAccountingType
* tblTrader
* tblNettingLevelConfig
* tblValuationFunctionType
* tblUser

## Notice Domain

The Notice domain comprises the following tables:

* tblNotice
* tblNoticeData
* tblNoticeHistorical
* tblNoticeStatus
* tblNoticeStyle
* tblNoticeType
* tblNoticeXmlData
* tblNoticeXmlDataType

## Sub Domains tables

* tblCashFlow
* tblUser

## OBI report Domain

The Notice domain comprises the following tables:

* tblOBIReport
* tblOBIReportDetail
* tblOBIReportSummary

## Sub Domains tables

* tblUser

## Organization name Domain

The Organization domain comprises the following tables:

* tblOrganisationName

## Sub Domains tables

* tblUser

## Parameter Domain

The Parameter domain comprises the following tables:

* tblParameter
* tblParameterizedType
* tblParameterizedTypeMatchCriteria
* tblParameterType
* tblParameterValue
* tblPaymentType

## Sub Domains tables

* tblCashflowMatchStatus
* tblUser

## Persisted Object Domain

The Persisted object domain comprises the following tables:

* tblPersistedObject

## Sub Domains tables

* tblUser

## Pipeline Domain

The Persisted object domain comprises the following tables:

* tblPipeline

## Sub Domains tables

* tblUser

## Phoenix Product Domain

The Persisted object domain comprises the following tables:

* tblPhoenixProductType

## Sub Domains tables

* tblUser

## Priority Domain

The Priority object domain comprises the following tables:

* tblPriority

## Sub Domains tables

* tblUser

## Reconciliation status Domain

The Persisted object domain comprises the following tables:

* tblReconciliationStatus

## Sub Domains tables

* tblUser

## Recovery Domain

The Recovery domain comprises the following tables:

* tblRecoveryToRegionExcludedCounterparty

## Sub Domains tables

* tblUser

## Reference Domain

The Recovery domain comprises the following tables:

* tblReferenceType

## Sub Domains tables

* tblUser

## Relationship Domain

The Recovery domain comprises the following tables:

* tblRelationshipType

## Sub Domains tables

* tblUser

## Release Domain

The Releas domain comprises the following tables:

* tblReleaseCriteria
* tblReleaseCriteriaCurrency
* tblReleaseCriteriaToParameterizedType

## Sub Domains tables

* tblUser
* tblTradeSystem

## Rule Exception Domain

The Rule exception domain comprises the following tables:

* tblRuleException
* tblRuleExceptionArchive
* tblRuleExceptionCause
* tblRuleExceptionHistorical
* tblRuleExceptionRuleExceptionCause

## Sub Domains tables

* tblUser
* tblParameterizedType
* tblCashFlow

## Selected Domain

The Selected domain comprises the following tables:

* tblSelectedItem
* tblSelectedPage

## Sub Domains tables

* tblUser

## Sent Message Domain

The Sent message domain comprises the following tables:

* tblSentMessage
* tblSentMessageSource
* tblSentMessageXml
* tblSentMessageXmlCompressed

## Sub Domains tables

* tblUser

## SetIndex Domain

The Set Index message domain comprises the following tables:

* tblSetIndex

## Sub Domains tables

* tblUser
* tblParameterType

## Setting Domain

The setting domain comprises the following tables:

* tblSetting

## Sub Domains tables

* tblUser
* tblParameterType

## Settlement Domain

The settlement domain comprises the following tables:

* tblSettlementDetail
* tblSettlementInstruction
* tblSettlementInstructionChange
* tblSettlementInstructionHistorical
* tblSettlementInstructionProductType
* tblSettlementInstructionTradingScope
* tblSettlementSystem
* tblSettlementTerm
* tblSettlementType

## Sub Domains tables

* tblUser
* tblCashFlow
* tblReferenceType
* tblCurrency
* tblCounterpartyDetail
* tblEntity
* tblBankAccountType

## State Management Domain

The state management domain comprises the following tables:

* tblStateManagement

## Sub Domains tables

* tblUser

## Strike Domain

The strike domain comprises the following tables:

* tblStrikeDetail
* tblStrikeType

## Sub Domains tables

* tblUser

## Structure Domain

The structure domain comprises the following tables:

* tblStructuredDetail

## Sub Domains tables

* tblUser

## Threshold timer Domain

The Threshold timer domain comprises the following tables:

* tblThresholdTimes

## Sub Domains tables

* tblUser
* tblMessageType

## Trader Domain

The Trader domain comprises the following tables:

* tblTrader

## Sub Domains tables

* tblUser

## Trade system Domain

The Trade system domain comprises the following tables:

* tblTradeSystem

## Sub Domains tables

* tblUser

## Transaction Domain

The Transaction domain comprises the following tables:

* tblTransaction
* tblTransactionAlternateProduct
* tblTransactionAlternateProductType
* tblTransactionAlternateReference
* tblTransactionAlternateReferenceTypetblSettlementInstructionTradingScope
* tblTransactionEvent
* tblTransactionEventReference
* tblTransactionEventReferenceType
* tblTransactionEventStatus
* tblTransactionEventStatusType
* tblTransactionEventType
* tblTransactionNotional
* tblTransactionReference
* tblTransactionStatus
* tblTransactionStatusType
* tblTransactionStatusTypeStatus

## Sub Domains tables

* tblUser
* tblEntity
* tblAlternateReferenceType

## User Domain

The User domain comprises the following tables:

* tblUser

## Version Domain

The version domain comprises the following tables:

* tblVersion

## Sub Domains tables

* tblUser

## Workflow Domain

The workflow comprises the following tables:

* tblWorkflowStatus

## Sub Domains tables

* tblUser
* tblTrader

# Bounding Contexts

A bounding context is a group of domains or sub-domains where there are no conflicting models between them, sub-domains may be shared between bounding contexts, however, they may have a different meaning within that context.