Attachments 6 – 10

Attachment 6 – Business Rules

Attachment 7 – ICD's

Attachment 8 – Entity Relationship Diagrams

Attachment 9 – Correspondence List

Attachment 10 – NCDOT/NCTA GL Interface

Attachment 6

Business Rules

(**Important Note**: There are 9 total 'Business Rules' documents. For ease of reference, they are all "paperclipped" to this Attachments file.)

The file name of each 'paperclipped' document is outlined below:

Att. 6_Account Matrix.xlsx
Att. 6_Account Transaction Posting.xlsx
Att. 6_End to End Duplicate Filter.xlsx
Att. 6_FinCodes.xlsx
Att. 6_Invoice Escalation Form.pdf
Att. 6_Name Address Matching.xlsx
Att. 6_NC DMV-Registration Status Codes.xlsx
Att. 6_NCDOT-NCTA Account Mapping.xlsx
Att. 6_Universal Invoice Escalation.xlsm

Attachment 7

ICDs

(**Important Note**: There are 6 total ICD documents. For ease of reference, they are all "paperclipped" to this Attachments file.)
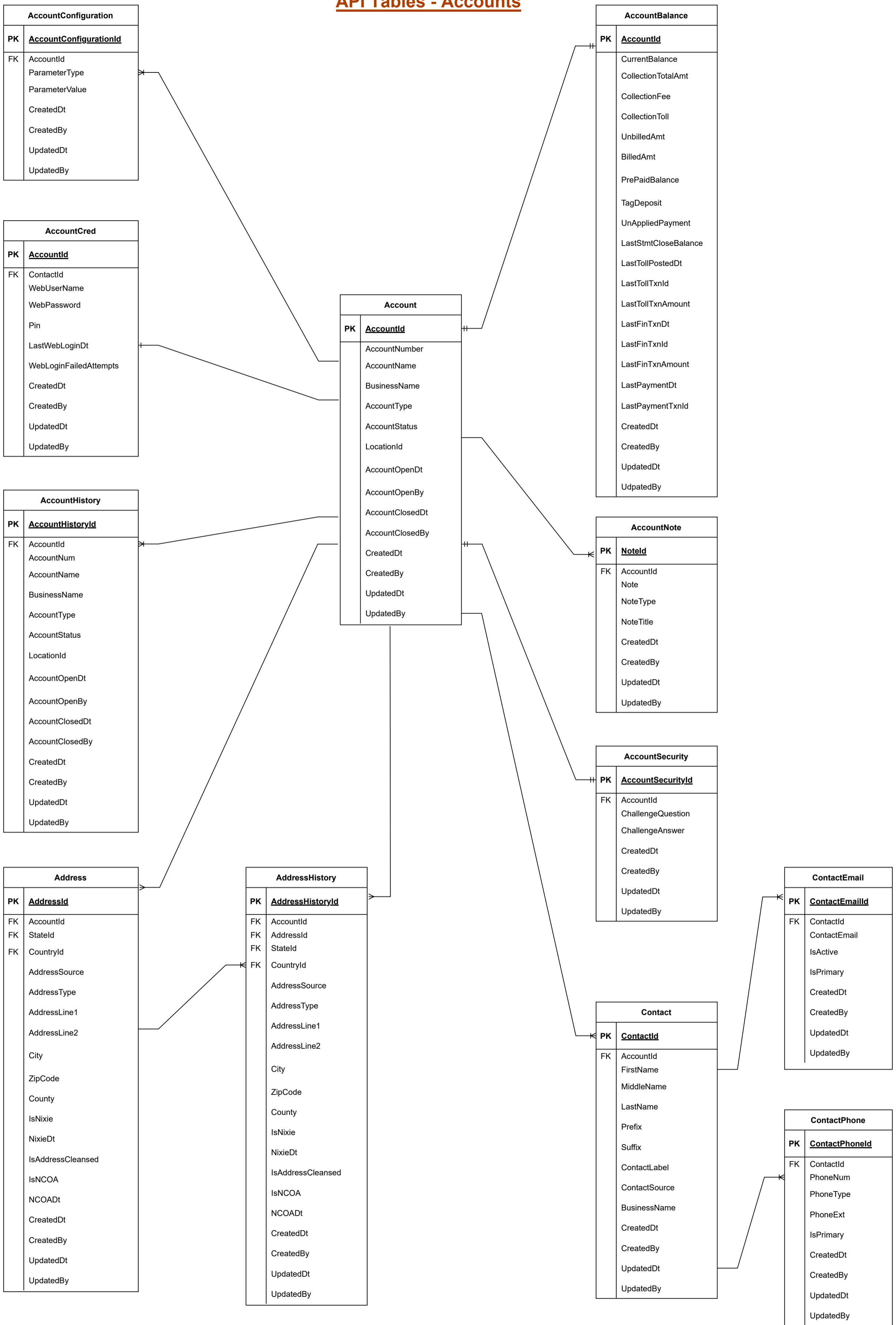
The file name of each 'paperclipped' document is outlined below:

Att.7_NCTA_BOS_RTCS_FileExchange_ICD.pdf
Att.7_NCTA_Collections_ICD.pdf
Att.7_Real-TimeBillPayment_SoftwareDevelopmentKit.pdf
Att.7_IAG_Inter-CSC_Files-Appendix.xlsx
Att.7_IAG_Inter-CSC_Files.pdf
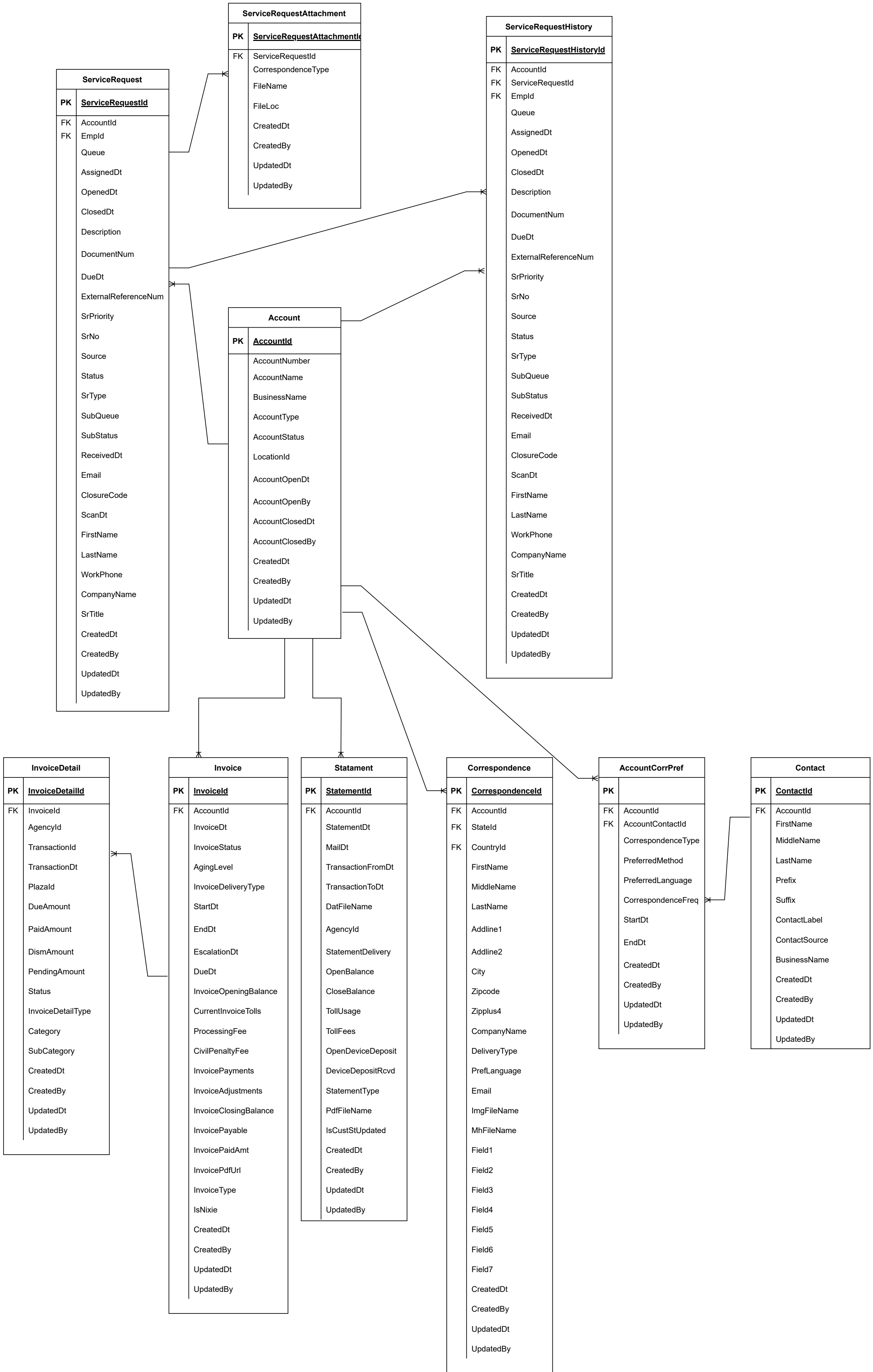Att.7_NCTA_CBOS TransponderFulfillment_ICD.pdf

Attachment 8
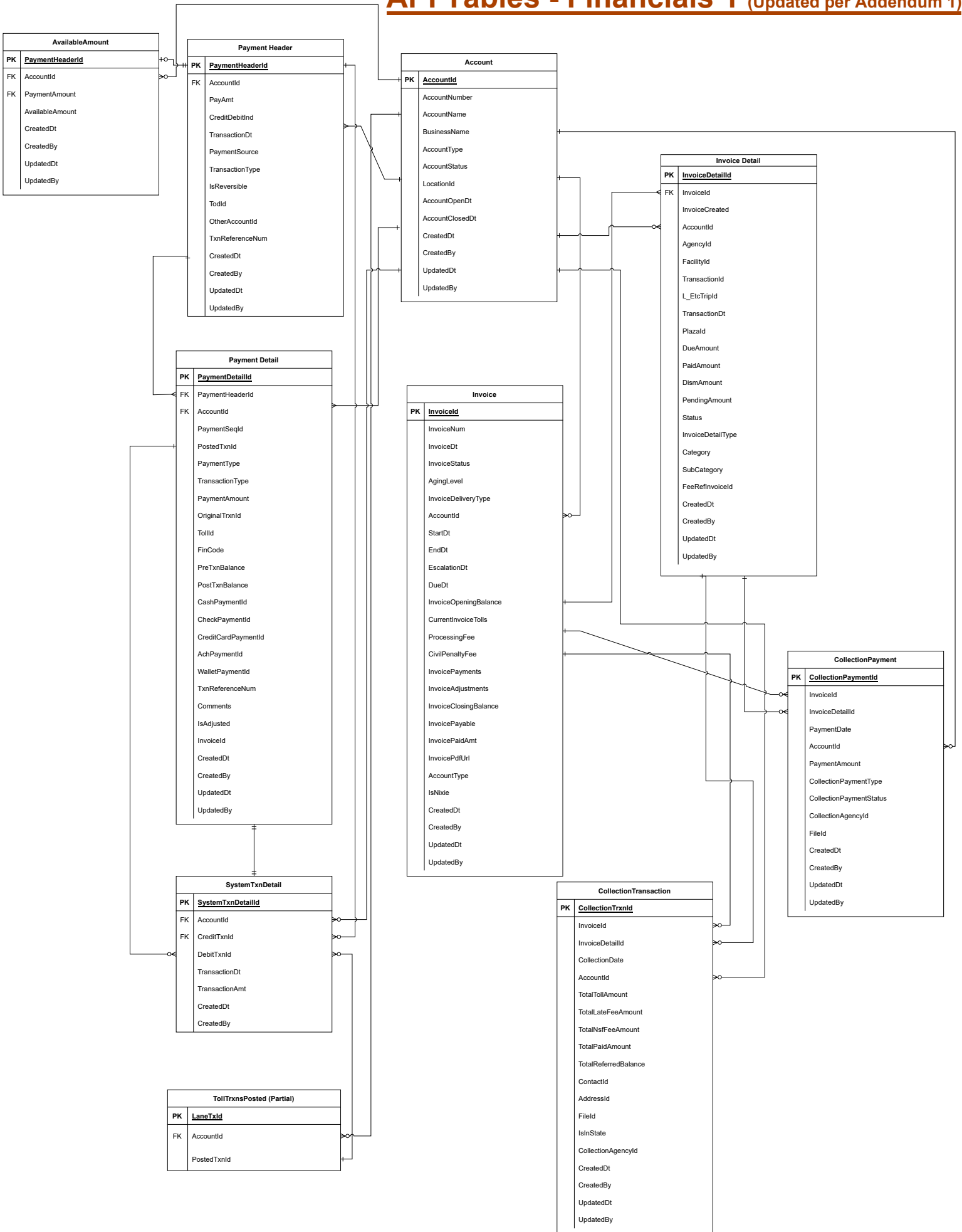# Entity Relationship Diagrams

API Tables - Toll Transaction

Image Deatils

- PK **ImageDetailId**
- LaneTxId
- ReceiveDate
- ProcessDate
- OCRConf
- TrxnTimestamp
- ZipFileName
- ImgFileIndex
- ImageName
- CountryName
- ImageStatusId
- IsReviewed
- IsProcessed
- ImageFileType
- PlazaId
- LaneId
- biETCTripTrxnId
- bIsROIImage
- bIsROIImageOfRecord
- bIsFrontImage
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy

Account

- PK **AccountId**
- AccountNumber
- AccountName
- BusinessName
- AccountType
- AccountStatus
- LocationId
- AccountOpenDt
- AccountClosedDt
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy

TollTrxnsAwayIncoming

- PK **RecId**
- FK AccountId
- LaneTxId
- RecordType
- TxExternRefNo
- TxSeqNumber
- TollRevenueType
- AdjustmentCount
- EntryLaneDesc
- EntryPlazaDesc
- EntryLane
- EntryPlaza
- EntryTimestamp
- EntryTimestmpDt
- EntryTimestampUTC
- EntryTxSeqNumber
- ExitLaneDesc
- ExitPlazaDesc
- ExitLane
- ExitPlaza
- ExitTimestamp
- ExitTimestampDt
- ExitTimestampUTC
- TollSystemType
- PlazaAgency
- FacilityId
- LaneMode
- ActualClass
- ActualAxles
- PostclassClass
- PostclassAxles
- VideoRate
- ETCRate
- ChargedRate
- CollectedAmount
- ETCDiscountType
- VideoDiscountType
- RegisteredVideoTollAmount
- RegisteredVideoDiscountType
- RegisteredVideoOrigTollAmount
- UnrealizedAmount
- RevenueDt
- EntryVehicleSpeed
- ExitVehicleSpeed
- VehicleSpecialClass
- VehicleLength
- DevicePrefix
- DeviceNo
- DeviceCodedClass
- DevicelagClass
- DeviceAxles
- AccountAgency
- IsBufferedRead
- LaneDeviceStatus
- PostDeviceStatus
- TagPgmStatus
- ReadPerformance
- WritePerf
- IsSpeeding
- PlaneType
- Status
- IsImageTaken
- PlateCountry
- PlateState
- PlateNumber
- PlateType
- PostedDate
- PostedDateTime
- DispositionDate
- DispositionId
- ResubmittalReason
- ResubmittalCount
- CorrReason
- RTCSRejectReason
- SubscriberId
- TxDate
- Occupancy
- PreTxnBalance
- TrxType
- TrxSubtype
- L_EtcTripId
- InFileId
- L_FileId
- FileName
- ProcessId
- HovTagReadInd
- NumberOfImages
- OCRLicNumber
- OCRLicState
- OCRPlateConfidenceValue
- OCRStateConfidenceValue
- DupToll
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy

TollTrxnsPosted

- PK **LaneTxId**
- FK AccountId
- PostedTxnId
- RecordType
- TxExternRefNo
- TxSeqNumber
- TollRevenueType
- AdjustmentCount
- EntryLaneId
- EntryPlazaId
- EntryTimestamp
- EntryTimestampUTC
- EntryTxSeqNumber
- ExitLaneId
- ExitPlazaId
- ExitTimestamp
- ExitTimestampUTC
- TollSystemType
- PlazaAgencyId
- LaneMode
- ActualClass
- ActualAxles
- PostclassClass
- PostclassAxles
- VideoRate
- ETCRate
- ChargedRate
- CollectedAmount
- ETCDiscountType
- VideoDiscountType
- RegisteredVideoTollAmount
- RegisteredVideoDiscountType
- RegisteredVideoOrigTollAmount
- UnrealizedAmount
- EntryVehicleSpeed
- ExitVehicleSpeed
- VehicleSpecialClass
- IsExtendedVehicle
- VehicleLength
- DevicePrefix
- DeviceNo
- DeviceCodedClass
- DevicelagClass
- DeviceAxles
- AccountAgencyId
- IsBufferedRead
- LaneDeviceStatus
- PostDeviceStatus
- PlanTypeId
- Status
- IsImageTaken
- PlateCountry
- PlateState
- PlateNumber
- PlateType
- PostedDate
- PostedDateTime
- DispositionDate
- DispositionId
- ResubmittalReason
- ResubmittalCount
- CorrReason
- RTCSRejectReason
- SubscriberId
- TxDate
- Occupancy
- PreTxnBalance
- TrxType
- TrxSubtype
- InFileId
- L_InFileId
- OutFileId
- L_OutFileId
- L_EtcTripId
- L_RecId
- ProcessId
- HovTagReadInd
- NumberOfImages
- OCRLicNumber
- OCRLicState
- OCRPlateConfidenceValue
- OCRStateConfidenceValue
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy

TollTrxnsRTCSIncoming

- PK **RecId**
- FK AccountId
- LaneTxId
- RecordType
- TxExternRefNo
- TxSeqNumber
- TollRevenueType
- AdjustmentCount
- EntryLaneDesc
- EntryPlazaDesc
- EntryLane
- EntryPlaza
- EntryTimestamp
- EntryTimestmpDt
- EntryTimestampUTC
- EntryTxSeqNumber
- ExitLaneDesc
- ExitPlazaDesc
- ExitLane
- ExitPlaza
- ExitTimestamp
- ExitTimestampDt
- ExitTimestampUTC
- TollSystemType
- PlazaAgency
- FacilityId
- LaneMode
- ActualClass
- ActualAxles
- PostclassClass
- PostclassAxles
- VideoRate
- ETCRate
- ChargedRate
- CollectedAmount
- ETCDiscountType
- VideoDiscountType
- RegisteredVideoTollAmount
- RegisteredVideoDiscountType
- RegisteredVideoOrigTollAmount
- UnrealizedAmount
- RevenueDt
- EntryVehicleSpeed
- ExitVehicleSpeed
- VehicleSpecialClass
- VehicleLength
- DevicePrefix
- DeviceNo
- DeviceCodedClass
- DevicelagClass
- DeviceAxles
- AccountAgency
- IsBufferedRead
- LaneDeviceStatus
- PostDeviceStatus
- TagPgmStatus
- ReadPerformance
- WritePerf
- IsSpeeding
- PlaneType
- Status
- IsImageTaken
- PlateCountry
- PlateState
- PlateNumber
- PlateType
- PostedDate
- PostedDateTime
- DispositionDate
- DispositionId
- ResubmittalReason
- ResubmittalCount
- CorrReason
- RTCSRejectReason
- SubscriberId
- TxDate
- Occupancy
- PreTxnBalance
- TrxType
- TrxSubtype
- L_EtcTripId
- InFileId
- L_FileId
- FileName
- ProcessId
- HovTagReadInd
- NumberOfImages
- OCRLicNumber
- OCRLicState
- OCRPlateConfidenceValue
- OCRStateConfidenceValue
- DupToll
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy

TollTrxnsAwayReconciled

- PK **LaneTxId**
- FK AccountId
- PostedTxnId
- RecordType
- TxExternRefNo
- TxSeqNumber
- TollRevenueType
- AdjustmentCount
- EntryLaneId
- EntryPlazaId
- EntryTimestamp
- EntryTimestampUTC
- EntryTxSeqNumber
- ExitLaneId
- ExitPlazaId
- ExitTimestamp
- ExitTimestampUTC
- TollSystemType
- PlazaAgencyId
- LaneMode
- ActualClass
- ActualAxles
- PostclassClass
- PostclassAxles
- VideoRate
- ETCRate
- ChargedRate
- CollectedAmount
- ETCDiscountType
- VideoDiscountType
- RegisteredVideoTollAmount
- RegisteredVideoDiscountType
- RegisteredVideoOrigTollAmount
- UnrealizedAmount
- EntryVehicleSpeed
- ExitVehicleSpeed
- VehicleSpecialClass
- IsExtendedVehicle
- VehicleLength
- DevicePrefix
- DeviceNo
- DeviceCodedClass
- DevicelagClass
- DeviceAxles
- AccountAgencyId
- IsBufferedRead
- LaneDeviceStatus
- PostDeviceStatus
- PlanTypeId
- Status
- IsImageTaken
- PlateCountry
- PlateState
- PlateNumber
- PlateType
- PostedDate
- PostedDateTime
- DispositionDate
- DispositionId
- ResubmittalReason
- ResubmittalCount
- CorrReason
- RTCSRejectReason
- SubscriberId
- TxDate
- Occupancy
- PreTxnBalance
- TrxType
- TrxSubtype
- InFileId
- L_InFileId
- OutFileId
- L_OutFileId
- L_EtcTripId
- L_RecId
- ProcessId
- HovTagReadInd
- NumberOfImages
- OCRLicNumber
- OCRLicState
- OCRPlateConfidenceValue
- OCRStateConfidenceValue
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy

Image Transcations

- PK **LaneTxId**
- FK AccountId
- TxExternRefNo
- TxSeqNumber
- TollRevenueType
- AdjustmentCount
- EntryLaneId
- EntryPlazaId
- EntryTimestamp
- EntryTimestampUTC
- EntryTxSeqNumber
- ExitLaneId
- ExitPlazaId
- ExitTimestamp
- ExitTimestampUTC
- TollSystemType
- PlazaAgencyId
- LaneMode
- ActualClass
- ActualAxles
- PostclassClass
- PostclassAxles
- VideoRate
- EtcRate
- ChargedRate
- CollectedAmount
- UnrealizedAmount
- EntryVehicleSpeed
- ExitVehicleSpeed
- VehicleLength
- DevicePrefix
- DeviceNo
- DeviceCodedClass
- DevicelagClass
- DeviceAxles
- AccountAgencyId
- IsBufferedRead
- LaneDeviceStatus
- PostDeviceStatus
- PlanTypeId
- Status
- IsImageTaken
- PlateCountry
- PlateState
- PlateNumber
- PlateType
- PostedDate
- PostedDateTime
- DispositionDate
- DispositionId
- TxDate
- Occupancy
- PreTxnBalance
- TrxType
- TrxSubtype
- File
- Process
- HovTagReadInd
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy

XferDetail

- PK **XferDetailId**
- FileName
- XferConfig
- Status
- Path
- Size
- RecordCount
- L_FileId
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy

IAACKStatus

- PK **IAACKStatusId**
- AckFileName
- AckFileDateTime
- AckFileStatus
- TrxFileName
- ReconFileName
- FileType
- FromAgency
- ToAgency
- IncomingFileId
- OutgoingProcessId
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy

TollTrxnsAwayOutgoing

- PK **LaneTxId**
- FK AccountId
- PostedTxnId
- RecordType
- TxExternRefNo
- TxSeqNumber
- TollRevenueType
- AdjustmentCount
- EntryLaneId
- EntryPlazaId
- EntryTimestamp
- EntryTimestampUTC
- EntryTxSeqNumber
- ExitLaneId
- ExitPlazaId
- ExitTimestamp
- ExitTimestampUTC
- TollSystemType
- PlazaAgencyId
- LaneMode
- ActualClass
- ActualAxles
- PostclassClass
- PostclassAxles
- VideoRate
- ETCRate
- ChargedRate
- CollectedAmount
- ETCDiscountType
- VideoDiscountType
- RegisteredVideoTollAmount
- RegisteredVideoDiscountType
- RegisteredVideoOrigTollAmount
- UnrealizedAmount
- EntryVehicleSpeed
- ExitVehicleSpeed
- VehicleSpecialClass
- IsExtendedVehicle
- VehicleLength
- DevicePrefix
- DeviceNo
- DeviceCodedClass
- DevicelagClass
- DeviceAxles
- AccountAgencyId
- IsBufferedRead
- LaneDeviceStatus
- PostDeviceStatus
- PlanTypeId
- Status
- IsImageTaken
- PlateCountry
- PlateState
- PlateNumber
- PlateType
- PostedDate
- PostedDateTime
- DispositionDate
- DispositionId
- ResubmittalReason
- ResubmittalCount
- CorrReason
- RTCSRejectReason
- SubscriberId
- TxDate
- Occupancy
- PreTxnBalance
- TrxType
- TrxSubtype
- InFileId
- L_InFileId
- OutFileId
- L_OutFileId
- L_EtcTripId
- L_RecId
- ProcessId
- HovTagReadInd
- NumberOfImages
- OCRLicNumber
- OCRLicState
- OCRPlateConfidenceValue
- OCRStateConfidenceValue
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy

IAFileStatus

- PK **IAFileStatusId**
- TxnFileName
- ReconFileName
- IsProcessed
- InputCount
- OutputCount
- FromAgency
- ToAgency
- FileDate
- FileSeqNumber
- FileType
- InFileId
- OutFileId
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy

TollTrxnsReject

- PK **LaneTxId**
- FK AccountId
- PostedTxnId
- RecordType
- TxExternRefNo
- TxSeqNumber
- TollRevenueType
- AdjustmentCount
- EntryLaneId
- EntryPlazaId
- EntryTimestamp
- EntryTimestampUTC
- EntryTxSeqNumber
- ExitLaneId
- ExitPlazaId
- ExitTimestamp
- ExitTimestampUTC
- TollSystemType
- PlazaAgencyId
- LaneMode
- ActualClass
- ActualAxles
- PostclassClass
- PostclassAxles
- VideoRate
- ETCRate
- ChargedRate
- CollectedAmount
- ETCDiscountType
- VideoDiscountType
- RegisteredVideoTollAmount
- RegisteredVideoDiscountType
- RegisteredVideoOrigTollAmount
- UnrealizedAmount
- EntryVehicleSpeed
- ExitVehicleSpeed
- VehicleSpecialClass
- IsExtendedVehicle
- VehicleLength
- DevicePrefix
- DeviceNo
- DeviceCodedClass
- DevicelagClass
- DeviceAxles
- AccountAgencyId
- IsBufferedRead
- LaneDeviceStatus
- PostDeviceStatus
- PlanTypeId
- Status
- IsImageTaken
- PlateCountry
- PlateState
- PlateNumber
- PlateType
- PostedDate
- PostedDateTime
- DispositionDate
- DispositionId
- ResubmittalReason
- ResubmittalCount
- CorrReason
- RTCSRejectReason
- SubscriberId
- TxDate
- Occupancy
- PreTxnBalance
- TrxType
- TrxSubtype
- InFileId
- L_InFileId
- OutFileId
- L_OutFileId
- L_EtcTripId
- L_RecId
- ProcessId
- HovTagReadInd
- NumberOfImages
- OCRLicNumber
- OCRLicState
- OCRPlateConfidenceValue
- OCRStateConfidenceValue
- CreatedDt
- CreatedBy
- UpdatedDt
- UpdatedBy

API Tables - Accounts

AccountConfiguration

PK	**AccountConfigurationId**
FK	AccountId
	ParameterType
	ParameterValue
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

AccountCred

PK	**AccountId**
FK	ContactId
	WebUserName
	WebPassword
	Pin
	LastWebLoginDt
	WebLoginFailedAttempts
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

AccountHistory

PK	**AccountHistoryId**
FK	AccountId
	AccountNum
	AccountName
	BusinessName
	AccountType
	AccountStatus
	LocationId
	AccountOpenDt
	AccountOpenBy
	AccountClosedDt
	AccountClosedBy
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Account

PK	**AccountId**
	AccountNumber
	AccountName
	BusinessName
	AccountType
	AccountStatus
	LocationId
	AccountOpenDt
	AccountOpenBy
	AccountClosedDt
	AccountClosedBy
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

AccountBalance

PK	**AccountId**
	CurrentBalance
	CollectionTotalAmt
	CollectionFee
	CollectionToll
	UnbilledAmt
	BilledAmt
	PrePaidBalance
	TagDeposit
	UnAppliedPayment
	LastStmtCloseBalance
	LastTollPostedDt
	LastTollTxnId
	LastTollTxnAmount
	LastFinTxnDt
	LastFinTxnId
	LastFinTxnAmount
	LastPaymentDt
	LastPaymentTxnId
	CreatedDt
	CreatedBy
	UpdatedDt
	UdpatedBy

AccountNote

PK	**NoteId**
FK	AccountId
	Note
	NoteType
	NoteTitle
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

AccountSecurity

PK	**AccountSecurityId**
FK	AccountId
	ChallengeQuestion
	ChallengeAnswer
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Address

PK	**AddressId**
FK	AccountId
FK	StateId
FK	CountryId
	AddressSource
	AddressType
	AddressLine1
	AddressLine2
	City
	ZipCode
	County
	IsNixie
	NixieDt
	IsAddressCleansed
	IsNCOA
	NCOADt
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

AddressHistory

PK	**AddressHistoryId**
FK	AccountId
FK	AddressId
FK	StateId
FK	CountryId
	AddressSource
	AddressType
	AddressLine1
	AddressLine2
	City
	ZipCode
	County
	IsNixie
	NixieDt
	IsAddressCleansed
	IsNCOA
	NCOADt
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Contact

PK	**ContactId**
FK	AccountId
	FirstName
	MiddleName
	LastName
	Prefix
	Suffix
	ContactLabel
	ContactSource
	BusinessName
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

ContactEmail

PK	**ContactEmailId**
FK	ContactId
	ContactEmail
	IsActive
	IsPrimary
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

ContactPhone

PK	**ContactPhoneId**
FK	ContactId
	PhoneNum
	PhoneType
	PhoneExt
	IsPrimary
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

API Tables - Assets

PurchaseOrder

PK	**PurchaseOrderId**
	PurchaseOrderNum
	LineItemId
	AgencyId
	StoreId
	ModelId
	PurchaseType
	PurchaseOrderDt
	OrderStatus
	LineItemStatus
	OrderQuantity
	StartDeviceNum
	EndDeviceNum
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Transponder

PK	**TransponderId**
FK	AccountId
FK	IagVehicleClassId
FK	BoxId
FK	DeviceCharId
FK	VehicleId
	DeviceNum
	DeviceStatus
	DeviceIssueType
	StatusDt
	DevicePrice
	AsignedDt
	AssignmentType
	EffectiveEndDt
	CscStoreLocationID
	PurchaseOrderId
	IsDeviceReplaced
	DeviceRequestNum
	RequestSource
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Box

PK	**BoxId**
	BoxNum
	BoxType
	BoxStatus
	IagVehicleClassId
	BoxCheckedOutTo
	DeviceCount
	DeviceCharId
	ShipmentId
	BoxShelfRackNum
	DisposeDt
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

DMVSuspension

PK	**VehicleId**
FK	AccountId
	DMVLookUpDt
	IsDmvSusp
	DmvSuspStartDt
	DmvSuspStopDt
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Vehicle

PK	**VehicleId**
FK	AccountId
FK	StateId
FK	CountryId
FK	IagVehicleClassId
	PlateNum
	PlateType
	VehicleLabel
	IsTemporaryPlate
	EffectiveStartDt
	EffectiveEndDt
	VehicleYear
	VehicleMake
	VehicleModel
	VehicleColor
	DmvLookUpDt
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

PurchaseOrderReceipt

PK	**PurchaseOrderReceiptId**
FK	PurchaseOrderId
	ReceiptNum
	LineNum
	ReceiptDt
	QuantityPerBox
	NumBoxesReceived
	NumDevicesReceived
	StartDeviceNum
	EndDeviceNum
	WarrantyPeriod
	PurchaseOrderStatus
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

TransponderHistory

PK	**TransponderHistoryId**
FK	TransponderId
FK	AccountId
FK	IagVehicleClassId
FK	BoxId
FK	DeviceCharId
FK	VehicleId
	DeviceNum
	DeviceStatus
	DeviceIssueType
	StatusDt
	DevicePrice
	AssignedDt
	AssignmentType
	EffectiveEndDt
	StoreName
	TagPurchaseOrderId
	RetailerPurchaseOrderId
	IsDeviceReplaced
	DeviceRequestNum
	RequestSource
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Account

PK	**AccountId**
	AccountNumber
	AccountName
	BusinessName
	AccountType
	AccountStatus
	LocationId
	AccountOpenDt
	AccountOpenBy
	AccountClosedDt
	AccountClosedBy
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

VehicleHistory

PK	**VehicleHistoryId**
FK	VehicleId
FK	AccountId
FK	StateId
FK	CountryId
FK	IagVehicleClassId
	PlateNum
	PlateType
	VehicleLabel
	IsTemporaryPlate
	EffectiveStartDt
	EffectiveEndDt
	VehicleYear
	VehicleMake
	VehicleModel
	VehicleColor
	DmvLookUpDt
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Retailer

PK	**RetailerId**
FK	AccountId
	RetailerName
	RetailerTypeId
	IsActive
	RetailerOpenDt
	RetailerClosedDt
	TransponderThreshold
	RetailerPromotionCode
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

RebillPayInfo

PK	**RebillPayId**
FK	AccountId
	RebillPayType
	CreditCardId
	ExpirationMonth
	ExpirationYear
	CreditCardNum
	TokenizedCCNum
	AchId
	BankName
	RoutingNum
	BankAccountNum
	CcType
	AchType
	PreferredOrder
	ReplenishmentCustomerAmt
	ReplenishmentAmt
	ReplenishmentAmtCalculatedDt
	ReplenishmentThresholdAmt
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

RebillPayInfoHistory

PK	**RebillPayHistoryId**
FK	RebillPayId
FK	AccountId
FK	CreditCardId
FK	AchId
	RebillPayType
	ExpirationMonth
	ExpirationYear
	CreditCardNum
	TokenizedCCNum
	BankName
	RoutingNum
	BankAccountNum
	CcType
	AchType
	PreferredOrder
	ReplenishmentCustomerAmt
	ReplenishmentAmt
	ReplenishmentAmtCalculatedDt
	ReplenishmentThresholdAmt
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

API Tables - Customer Correspondence

ServiceRequestAttachment

PK	ServiceRequestAttachmentId
FK	ServiceRequestId
	CorrespondenceType
	FileName
	FileLoc
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

ServiceRequestHistory

PK	ServiceRequestHistoryId
FK	AccountId
FK	ServiceRequestId
FK	EmpId
	Queue
	AssignedDt
	OpenedDt
	ClosedDt
	Description
	DocumentNum
	DueDt
	ExternalReferenceNum
	SrPriority
	SrNo
	Source
	Status
	SrType
	SubQueue
	SubStatus
	ReceivedDt
	Email
	ClosureCode
	ScanDt
	FirstName
	LastName
	WorkPhone
	CompanyName
	SrTitle
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

ServiceRequest

PK	ServiceRequestId
FK	AccountId
FK	EmpId
	Queue
	AssignedDt
	OpenedDt
	ClosedDt
	Description
	DocumentNum
	DueDt
	ExternalReferenceNum
	SrPriority
	SrNo
	Source
	Status
	SrType
	SubQueue
	SubStatus
	ReceivedDt
	Email
	ClosureCode
	ScanDt
	FirstName
	LastName
	WorkPhone
	CompanyName
	SrTitle
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Account

PK	AccountId
	AccountNumber
	AccountName
	BusinessName
	AccountType
	AccountStatus
	LocationId
	AccountOpenDt
	AccountOpenBy
	AccountClosedDt
	AccountClosedBy
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

InvoiceDetail

PK	InvoiceDetailId
FK	InvoiceId
	AgencyId
	TransactionId
	TransactionDt
	PlazaId
	DueAmount
	PaidAmount
	DismAmount
	PendingAmount
	Status
	InvoiceDetailType
	Category
	SubCategory
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Invoice

PK	InvoiceId
FK	AccountId
	InvoiceDt
	InvoiceStatus
	AgingLevel
	InvoiceDeliveryType
	StartDt
	EndDt
	EscalationDt
	DueDt
	InvoiceOpeningBalance
	CurrentInvoiceTolls
	ProcessingFee
	CivilPenaltyFee
	InvoicePayments
	InvoiceAdjustments
	InvoiceClosingBalance
	InvoicePayable
	InvoicePaidAmt
	InvoicePdfUrl
	InvoiceType
	IsNixie
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Statament

PK	StatementId
FK	AccountId
	StatementDt
	MailDt
	TransactionFromDt
	TransactionToDt
	DatFileName
	AgencyId
	StatementDelivery
	OpenBalance
	CloseBalance
	TollUsage
	TollFees
	OpenDeviceDeposit
	DeviceDepositRcvd
	StatementType
	PdfFileName
	IsCustStUpdated
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Correspondence

PK	CorrespondenceId
FK	AccountId
FK	StateId
FK	CountryId
	FirstName
	MiddleName
	LastName
	Addline1
	Addline2
	City
	Zipcode
	Zipplus4
	CompanyName
	DeliveryType
	PrefLanguage
	Email
	ImgFileName
	MhFileName
	Field1
	Field2
	Field3
	Field4
	Field5
	Field6
	Field7
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

AccountCorrPref

PK	
FK	AccountId
FK	AccountContactId
	CorrespondenceType
	PreferredMethod
	PreferredLanguage
	CorrespondenceFreq
	StartDt
	EndDt
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Contact

PK	ContactId
FK	AccountId
	FirstName
	MiddleName
	LastName
	Prefix
	Suffix
	ContactLabel
	ContactSource
	BusinessName
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

API Tables - Financials 1 (Updated per Addendum 1)

AvailableAmount

PK	PaymentHeaderId
FK	AccountId
FK	PaymentAmount
	AvailableAmount
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Payment Header

PK	PaymentHeaderId
FK	AccountId
	PayAmt
	CreditDebitInd
	TransactionDt
	PaymentSource
	TransactionType
	IsReversible
	TodId
	OtherAccountId
	TxnReferenceNum
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Account

PK	AccountId
	AccountNumber
	AccountName
	BusinessName
	AccountType
	AccountStatus
	LocationId
	AccountOpenDt
	AccountClosedDt
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Invoice Detail

PK	InvoiceDetailId
FK	InvoiceId
	InvoiceCreated
	AccountId
	AgencyId
	FacilityId
	TransactionId
	L_EtcTripId
	TransactionDt
	PlazaId
	DueAmount
	PaidAmount
	DismAmount
	PendingAmount
	Status
	InvoiceDetailType
	Category
	SubCategory
	FeeRefInvoiceId
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Payment Detail

PK	PaymentDetailId
FK	PaymentHeaderId
FK	AccountId
	PaymentSeqId
	PostedTxnId
	PaymentType
	TransactionType
	PaymentAmount
	OriginalTrxnId
	TollId
	FinCode
	PreTxnBalance
	PostTxnBalance
	CashPaymentId
	CheckPaymentId
	CreditCardPaymentId
	AchPaymentId
	WalletPaymentId
	TxnReferenceNum
	Comments
	IsAdjusted
	InvoiceId
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Invoice

PK	InvoiceId
	InvoiceNum
	InvoiceDt
	InvoiceStatus
	AgingLevel
	InvoiceDeliveryType
	AccountId
	StartDt
	EndDt
	EscalationDt
	DueDt
	InvoiceOpeningBalance
	CurrentInvoiceTolls
	ProcessingFee
	CivilPenaltyFee
	InvoicePayments
	InvoiceAdjustments
	InvoiceClosingBalance
	InvoicePayable
	InvoicePaidAmt
	InvoicePdfUrl
	AccountType
	IsNixie
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

CollectionPayment

PK	CollectionPaymentId
	InvoiceId
	InvoiceDetailId
	PaymentDate
	AccountId
	PaymentAmount
	CollectionPaymentType
	CollectionPaymentStatus
	CollectionAgencyId
	FileId
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

SystemTxnDetail

PK	SystemTxnDetailId
FK	AccountId
FK	CreditTxnId
	DebitTxnId
	TransactionDt
	TransactionAmt
	CreatedDt
	CreatedBy

CollectionTransaction

PK	CollectionTrxnId
	InvoiceId
	InvoiceDetailId
	CollectionDate
	AccountId
	TotalTollAmount
	TotalLateFeeAmount
	TotalNsfFeeAmount
	TotalPaidAmount
	TotalReferredBalance
	ContactId
	AddressId
	FileId
	IsInState
	CollectionAgencyId
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

TollTrxnsPosted (Partial)

PK	LaneTxId
FK	AccountId
	PostedTxnId

API Tables - Financials 2

Credit Card Payment

PK	**CrediCardPaymentId**
FK	AccountId
	CreditCardExpMonth
	CreditCardExpYear
	TransactionReturnCode
	CCPaymentStatus
	CCPaymentRefNo
	CreditCardNum
	CCPaymentInTime
	CCPaymentOutTime
	SettlementDate
	FundDate
	CCPaymentSource
	CCPaymentAmt
	CCTrxnID
	CCLastFourDigit
	CCPaymentAuthCode
	CCTypeID
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Payment Header

PK	**PaymentHeaderId**
FK	AccountId
FK	CashPaymentId
FK	CheckPaymentId
FK	MoneyOrderPaymentId
FK	CreditCardPaymentId
FK	AchPaymentId
FK	WalletPaymentId
	PayAmt
	TransactionDt
	PaymentSource
	PaymentStatus
	TransactionType
	IsReversible
	TodId
	OtherAccountId
	TxnReferenceNum
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Ach Payment

PK	**AchPaymentId**
FK	AccountId
	BankAccountNum
	RoutingNum
	TransactionReturnCode
	AchPaymentStatus
	AchReferenceNum
	AchTrxnAmount
	SettlementDate
	FundDate
	AchPaymentSource
	AchPaymentInTime
	AchPaymentOutTime
	AchPaymentAuthCode
	AchTypeId
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Cash Payment

PK	**CashPaymentId**
FK	AccountId
	CashTrxnAmt
	CashReceiveDate
	CashPaymentSource
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Wallet Payment

PK	**WalletPaymentId**
FK	AccountId
	WalletNum
	WalletExpMonth
	WalletExpYear
	TransactionReturnCode
	WalletPaymentStatus
	WalletPaymentRefNo
	WalletPaymentInTime
	WalletPaymentOutTime
	SettlementDate
	FundDate
	WalletPaymentAmt
	WalletTrxnID
	WalletLastFourDigit
	WalletPaymentAuthCode
	WalletTypeID
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Payment Detail

PK	**PaymentDetailId**
FK	PaymentHeaderId
FK	AccountId
FK	ReceivableId
	TransactionAmt
	FinCode
	Comment
	Category
	Agency
	PaymentType
	PreTransactionBalance
	Quantity
	SubCategory
	TransactionType
	BalanceType
	UnitPrice
	TransactionDt
	TransactionDtTime
	RefInvoiceId
	OrigPaymentDetailId
	PaymentSourceNumber
	PaymentReferenceNumber
	PaymentWalletType
	TmpCustTrxnTypeId
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Check Payment

PK	**CheckPaymentId**
FK	AccountId
	PayersName
	ChechPaymentNo
	CheckPaymentDate
	CheckTrxnAmt
	CheckApprovedAmount
	TransactionReturnCode
	CheckDocumentNum
	CheckPaymentSource
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Money Order Payment

PK	**MoneyOrderPaymentId**
FK	AccountId
	MoneyOrderPayersName
	MoneyOrderNumber
	MoneyOrderDate
	MoneyOrderAmount
	MoneyOrderPaymentSource
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

CustAcctLedger

PK	**Id**
FK	AccountId
FK	PaymentDetailId
FK	TransactionDetailId
	TransactionDt
	TransactionAmt
	PreTransactionBalance
	PostTransactionBalance
	CreatedDt
	CreatedBy
	UpdatedDt
	UpdatedBy

Attachment 9
Correspondence List

NO.	CORRESPONDENCE / NOTIFICATION NAME	EMAIL	TEXT	APP PUSH	ALERTS	MAIL-HOUSE	TRIGGER
1.	Bill-by-Mail / Bill-by-Email Invoice	X				X	Invoice Generation Process
2.	Account Statement	X				X	Statement Generation Process
3.	Quarterly Replenishment Evaluation	X	X	X	X		Quarterly Evaluation Process
4.	Credit Card Decline	X	X	X	X	X	Auto Replenish Process Failure
5.	Credit Card Expiration	X	X	X	X	X	Credit Card Expiration
6.	Credit Card Added	X	X	X	X		Customer Adds New Credit Card
7.	Credit Card Update	X	X	X	X		Customer Updates Credit Card
8.	Credit Card Removed	X	X	X	X		Customer Deletes Existing Credit Card
9.	Returned Check	X				X	NSF Check
10.	Account Suspension - Negative Balance	X	X	X	X	X	Account Suspension
11.	Transponder Not Detected	X	X	X	X	X	I-Toll count
12.	Inactive Account Warning	X	X	X		X	Account Inactive for Defined Timeframe
13.	PIN Request	X				X	PIN Request
14.	Low Balance	X	X	X	X	X	Balance Below Threshold
15.	Account Closure Due to Inactivity	X	X	X		X	Account Closure
16.	Undeliverable E-Mail Address		X	X	X	X	Email Returned from Mailhouse
17.	Undeliverable Mail	X	X	X	X		User or System Sets Mail Status to Undeliverable
18.	ACH Decline	X	X	X	X	X	Auto Replenish Process Failure
19.	Bank Account Added	X	X	X	X		Customer Adds New ACH
20.	Bank Account Updated	X	X	X	X		Customer Updates ACH

NO.	CORRESPONDENCE / NOTIFICATION NAME	EMAIL	TEXT	APP PUSH	ALERTS	MAIL-HOUSE	TRIGGER
21.	Bank Account Removed	X	X	X	X		Customer Deletes ACH
22.	Bankruptcy Applied	X				X	Bankruptcy Workflow Process
23.	Bankruptcy Not Applied	X				X	Bankruptcy Workflow Process
24.	DMV Hold	X				X	Hold Process Workflow
25.	Payment Confirmation	X	X	X	X		Payment occurs on the account
26.	TOR Letter	X				X	Tolls Reversal
27.	Check Refund Notification - Account Closure					X	Account Closure
28.	Credit Card Refund Notification - Account Closure	X	X	X		X	Account Closure
29.	Account Closure - Zero Balance	X	X	X		X	Account Closure
30.	One Time Refund - Check					X	Refund Processed
31.	One Time Refund - CC	X				X	Refund Processed
32.	Password Reset Code	X	X	X			Customer -Initiated
33.	Password Changed	X	X	X			Customer -Initiated
34.	Profile Update	X	X	X	X		Customer -Initiated
35.	Welcome to NC Quick Pass	X	X	X			Account Opened
36.	Account Locked	X	X	X			Customer -Initiated
37.	HOV Trip Scheduled	X	X	X			Customer -Initiated
38.	HOV Trip Canceled	X	X	X			Customer -Initiated
39.	HOV Trip Ends Soon	X	X	X			Customer -Initiated
40.	HOV Trip Reminder	X	X	X			Customer -Initiated

NO.	CORRESPONDENCE / NOTIFICATION NAME	EMAIL	TEXT	APP PUSH	ALERTS	MAIL-HOUSE	TRIGGER
41.	Vehicle/Transponder Update	X	X	X	X		Customer -Initiated
42.	Transponder Order Confirmation	X	X	X	X		User or Customer Requests Transponder (Not for New Accounts)
43.	Transponder Order Update	X	X	X	X		Transponder Assigned
44.	Lost or Stolen Transponder	X	X	X	X		Customer updates transponder to lost or stolen
45.	Account Profile	X	X	X			User -Initiated
46.	Email Update	X	X	X	X		Customer Updates Email
47.	Mobile Opt-In		X	X			Customer invite to enrol in SMS texts
48.	Mobile Opt-In Confirm		X	X			Customer Opts into SMS
49.	Mobile Help		X	X			Customer-Initiated
50.	Mobile Stop		X	X			Customer-Initiated
51.	Forgot Username	X	X	X			Customer-Initiated
52.	Vehicle Added	X	X	X	X		Customer adds a vehicle
53.	Vehicle Updated	X	X	X	X		Customer updates a vehicle
54.	Vehicle Removed	X	X	X	X		Customer removed a vehicle
55.	Bad Phone Number	X	X	X	X		User or System Updates Phone Number as "Bad"
56.	Case	X	X	X	X		Customer Opens Case
57.	Case Updated	X	X	X	X		Case update occurs
58.	Confirmation Code	X					CSR Initiated
59.	Account Statement Delivery Method Update	X	X	X	X		Customer-Initiated
60.	Vehicle File Upload	X	X	X	X		CSR Uploads Vehicle File for Customer

NO.	CORRESPONDENCE / NOTIFICATION NAME	EMAIL	TEXT	APP PUSH	ALERTS	MAIL-HOUSE	TRIGGER
61.	HOV Violation	X					HOV Violation process
62.	License Plate Identification	X					System-Initiated
63.	Account Summary	X					CSR Initiated
64.	Order Summary	X					CSR Initiated

Attachment 10
NCDOT/NCTA GL Interface

NCDOT/NCTA GL Interface

Back Office System

North Carolina Turnpike Authority

June 19, 2019

Version 1.0

Table of Contents

1.Introduction

NCTA BOS will create file(s) for toll revenues collected each day. BOS will capture every vehicle transaction at a detail line-item level, but the interface file in CSV format will contain summarized postings by G/L account.

The file will be placed on a specific server where it will be picked up during nightly processing for posting into SAP.

- File Naming Convention (system date posting date): YYYYMMDD_YYYYMMDD.txt
- System date part of the filename represents the file creation date.

2.File Layout Table

Table 1: File Layout

Field Name	Description	Data Type	Length	Value Format
BUDAT	Posting Date	CHAR	8	MMDDYYYY
COMMA	Comma Delimiter	CHAR	1	,
HKONT	SAP G/L Account Number	CHAR	10	00XXXXXXXX
COMMA	Comma Delimiter	CHAR	1	,
SHKZG	Debit/Credit Indicator	CHAR	1	D or C
COMMA	Comma Delimiter	CHAR	1	,
WRBTR	Amount	CHAR	15	XXXXXXXXXXXXXXX with last 2 characters representing cents
COMMA	Comma Delimiter	CHAR	1	,
SHKZG	Debit/Credit Indicator	CHAR	1	D or C
COMMA	Comma Delimiter	CHAR	1	,
WRBTR	Amount	CHAR	15	XXXXXXXXXXXXXXX with last 2 characters representing cents

3.File Layout Example

Table 2: File Layout Actual Example

Name:	20181219_20181218.TXT

```
20181218,0011220000,D,000000036033671,C,000000036198346
20181218,0011320008,D,000000006231922,C,000000007666990
20181218,0011342008,D,000000000031390,C,000000000000000
20181218,0011342015,D,000000000000000,C,000000000000000
20181218,0011342019,D,000000000116057,C,000000005066958
20181218,0011342024,D,000000000002028,C,000000000000000
20181218,0021132003,D,000000000000000,C,000000000171400
20181218,0021132010,D,000000000000000,C,000000000016175
20181218,0021132011,D,000000000000665,C,000000000300415
20181218,0021132017,D,000000000000000,C,000000000036400
20181218,0021132023,D,000000000000000,C,000000000011301
20181218,0021132020,D,000000000000000,C,000000000010290
20181218,0021132022,D,000000000000000,C,000000000051260
20181218,0021132024,D,000000000000000,C,000000000002425
20181218,0047900046,D,000000000000000,C,000000000000000
```