The "Basic Accounting" fundamentals for both "Accrual" and "Cash Basis" for Real-time instant Payments for FedNow® and RTP®

Basic Accounting Fundamentals for:

- **Cash Basis**
- **Accrual Basis**
- Applied specifically to **Real-Time Instant Payments**
- Across **FedNow Service**
- And **RTP network**

1️⃣ The Core Accounting Difference

Concept	Cash Basis	Accrual Basis
When revenue is recorded	When cash is received	When earned (invoice sent / RfP issued)
When expense is recorded	When cash is paid	When incurred
A/R (Accounts Receivable)	Not tracked	Tracked
A/P (Accounts Payable)	Not tracked	Tracked

Concept	Cash Basis	Accrual Basis
Financial clarity	Simple	More accurate for growth companies
Required for C-Corp (1120)	Usually no	Yes (if > $25M avg gross receipts)

2️⃣ How Real-Time Payments Change the Game

Instant payments (FedNow & RTP):

- Settle in **seconds**
- Provide **finality of payment**
- No reversals (outside of return requests)
- Immediate ledger posting capability
- 24/7/365 availability

This dramatically affects accounting timing.

3️⃣ Cash Basis Accounting + FedNow / RTP

🔹 Revenue Example (Merchant as Payee)

Scenario:

You send a Request for Payment (RfP).
Customer pays instantly via FedNow.

Journal Entry (Cash Basis):

<u>At moment funds hit bank:</u>

Dr Cash

  Cr Revenue

That's it.

There is:

- No A/R
- No pending state
- No aging

Because revenue is only recognized when cash arrives.

🔹 **Outstanding RfP (Unpaid)**

Under cash basis:

→ Nothing is recorded
→ It doesn't exist in accounting

It may exist operationally in your dashboard, but not in GL.

🛂 **Accrual Basis + FedNow / RTP**

This is where things get more interesting for your platforms like **TodayPayments.com** / **Real-TimePayments.com**.

🔹 **Step 1: When RfP / Invoice Is Issued**

Even if unpaid:

Dr Accounts Receivable

Cr Revenue

Revenue is earned when the obligation is fulfilled.

Now it sits in A/R aging.

🔹 **Step 2: When Instant Payment Arrives (Seconds Later)**

Dr Cash

Cr Accounts Receivable

A/R clears immediately.

So in real-time payments, the accrual cycle collapses from 30–60 days → seconds.

5️⃣ Accounting States for RfP Lifecycle

You build queue logic, so here's the accounting mapping:

RfP Status	Cash Basis	Accrual Basis
Draft	Nothing	Nothing
Sent	Nothing	A/R recorded
Pending	Nothing	A/R remains
Snoozed	Nothing	A/R remains
Paid	Revenue recorded	A/R cleared
Expired	Nothing	A/R write-off if needed
Declined	Nothing	A/R reversed

6️⃣ Major Differences for FedNow® & RTP®

Both rails behave similarly from accounting perspective:

Feature	FedNow	RTP
Settlement	Immediate	Immediate

Feature	FedNow	RTP
Finality	Yes	Yes
Reversal	Return request only	RfP or return message
Cutoff time	None	None
Weekend posting	Yes	Yes

From accounting standpoint → identical behavior.

7️⃣ Revenue Recognition Timing Impact

Traditional ACH:

Invoice → 30 days → ACH batch → settlement delay

Real-Time:

Invoice → RfP → 10 seconds → settled

So under accrual accounting:

Revenue still recognized when earned.

But:

- A/R aging collapses
- DSO (Days Sales Outstanding) drops dramatically
- Working capital improves
- Cash forecasting becomes precise

8️⃣ Expense Accounting (Payor Side)

Now let's flip to payer.

🔹 Cash Basis Expense

When paying vendor via RTP or FedNow:

Dr Expense

Cr Cash

Immediately when payment sent.

🔹 Accrual Basis Expense

When bill received:

Dr Expense

Cr Accounts Payable

When instant payment sent:

Dr Accounts Payable

Cr Cash

Again — A/P life cycle shrinks dramatically.

9️⃣ Key Internal Controls for Real-Time Accounting

Because payments are irreversible:

You must implement:

- Positive Pay / Reverse Positive Pay logic
- RfP validation workflows
- Dual authorization (for enterprise)
- Daily reconciliation via ISO 20022 camt messages
- Real-time GL posting logic

🔟 How This Impacts Your RfP Dashboard Architecture

For your merchant-centric queue designs:

You need 3 layers:

1️⃣ Operational Layer

RfP status lifecycle (pain.013 / pain.014 events)

2️⃣ Accounting Layer

GL mapping:

- Revenue
- A/R
- Cash
- A/P
- Fees

3️⃣ Treasury Layer

- Available balance
- Cleared funds
- Real-time liquidity

1️⃣1️⃣ Real-Time Accounting Advantages

Benefit	Impact
No float	No “in-transit” ambiguity
Final funds	No chargebacks
24/7 posting	Weekend revenue recognition
Auto reconciliation	ISO 20022 structured data

Benefit	Impact
Lower fraud	RfP pre-authorization model

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1 2 Executive Summary

Cash Basis + Instant Payments:

Simple.
Revenue when paid.
Nothing else matters.

Accrual Basis + Instant Payments:

Revenue when earned.
A/R clears instantly.
DSO approaches zero.
Financial statements become real-time.

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1 3 Strategic Insight for Your Platforms

For:

- Merchant dashboards
- CFO rollups
- QBO integrations
- Multi-MID reporting

You should:

- Maintain accrual logic internally
- Show operational queue
- Sync GL in real-time
- Auto-clear A/R when pacs.008 received

That creates:

True Real-Time Accounting Infrastructure

Below is a **production-grade framework** you can drop directly into:

- QBO-style merchant dashboard
- Bank-centric treasury view
- Multi-MID GL engine
- FedNow® + RTP® dual-rail infrastructure

Using:

- FedNow Service
- RTP network

PART 1

QBO-Style Outstanding RfP Queue + GL Mapping Table

This mirrors how QuickBooks® thinks (A/R aging + payments applied).

1️⃣ Core Queue View (Merchant-Centric)

🔹 Screen: "Outstanding Request for Payment (RfP)"

RfP ID	Invoice #	Customer	Rail	Amount	Issue Date	Due Date	Status	Aging	GL Status	Actions
RFP	INV-	ABC	FedNow	$2,500	02/	02/	Sent	Curr	A/RO	Remind

RfPID	Invoice #	Customer	Rail	Amount	Issue Date	Due Date	Status	Aging	GL Status	Actions
-10001	8841	Dental			10	10		ent	pen	
RFP-10002	INV-8842	Bright Co	RTP	$8,400	02/09	02/09	Snoozed	1 Day	A/R Open	Cancel
RFP-10003	INV-8843	Nova LLC	FedNow	$1,250	02/11	02/11	Paid	—	Closed	View

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2 Lifecycle → Accounting Mapping

This is the core engine logic.

RfP Lifecycle State	Accounting Event	GL Entry (Accrual)	GL Entry (Cash Basis)
Draft	None	None	None
Sent	Revenue recognized	Dr A/R / Cr Revenue	None
Pending	None	A/R remains	None
Snoozed	None	A/R remains	None
Paid	Settlement received	Dr Cash / Cr A/R	Dr Cash / Cr Revenue
Declined	Reverse revenue	Dr Revenue / Cr A/R	None
Expired	Optional write-off	Dr Bad Debt / Cr A/R	None
Refunded	Refund	Dr Revenue / Cr Cash	Dr Revenue / Cr Cash

3️⃣ Real-Time GL Engine Logic

When ISO 20022 pacs.008 (credit transfer) is received:

System Logic:

IF RfP_ID exists AND Status = Sent/Pending
→ Apply payment
→ Clear A/R
→ Post cash

This eliminates:

- Manual matching
- Undeposited funds clearing accounts
- Batch settlement timing issues

PART 2

Journal Entry Logic: FedNow vs RTP (Side-by-Side)

From an accounting perspective, they behave almost identically.
But treasury handling differs slightly.

MERCHANT AS PAYEE

1️⃣ Accrual Basis – Revenue Flow

When RfP (pain.013) is Sent

FedNow	RTP
Dr Accounts Receivable	Dr Accounts Receivable
Cr Revenue	Cr Revenue

No difference.

When Payment Settles (pacs.008 received)

FedNow	RTP
Dr Cash – FedNow Clearing	Dr Cash – RTP Clearing

FedNow	RTP
Cr Accounts Receivable	Cr Accounts Receivable

Optional: If using single operating account, both map to same Cash account.

2️⃣ Cash Basis – Revenue Flow

Nothing until settlement.

When payment hits:

FedNow	RTP
Dr Cash	Dr Cash
Cr Revenue	Cr Revenue

PAYER SIDE (Expense Flow)

1️⃣ Accrual Basis

When Bill Entered

FedNow	RTP
Dr Expense	Dr Expense
Cr Accounts Payable	Cr Accounts Payable

When Instant Payment Sent

FedNow	RTP
Dr Accounts Payable	Dr Accounts Payable
Cr Cash – FedNow	Cr Cash – RTP

2️⃣ Cash Basis

Expense recorded only when payment sent:

FedNow	RTP
Dr Expense	Dr Expense
Cr Cash	Cr Cash

PART 3

Advanced Considerations for Your Platform

Because you operate:

- Multi-MID
- Multi-bank
- Alias-based routing
- 24/7 settlement

You should include:

1️⃣ Clearing Account Option (Enterprise Setup)

Some FIs prefer temporary clearing:

When pacs.008 received:

Dr FedNow Clearing

Cr A/R

End of day auto-sweep:

Dr Operating Cash

Cr FedNow Clearing

Same for RTP.

2️⃣ Fee Handling

If processor fee is deducted instantly:

Dr Cash (net)

Dr Processing Fee Expense

Cr A/R (gross)

If fee billed monthly:

Dr Cash (gross)

Cr A/R

Then later:

Dr Processing Fee Expense

Cr A/P

PART 4

QBO-Style Dashboard Architecture (For You)

To mirror QuickBooks logic:

- **Tables Needed**

1. RfP_Master
2. RfP_Status_History
3. GL_Postings

4. Settlement_Events
5. MerchantMID_Ledger
6. BankRail_Summary

GL_Postings Table Structure

PostingID	DateTime	MerchantMID	Rail	AccountDebit	AccountCredit	Amount	RfP_ID

This enables:

- Real-time P&L
- Real-time balance sheet
- Real-time cash flow

PART 5

Executive-Level Insight

Under Accrual + Real-Time Rails:

DSO ≈ 0
Aging collapses
Cash forecasting becomes deterministic
Revenue recognition timing does not change
Liquidity improves dramatically

FINAL TAKEAWAY

From an accounting standpoint:

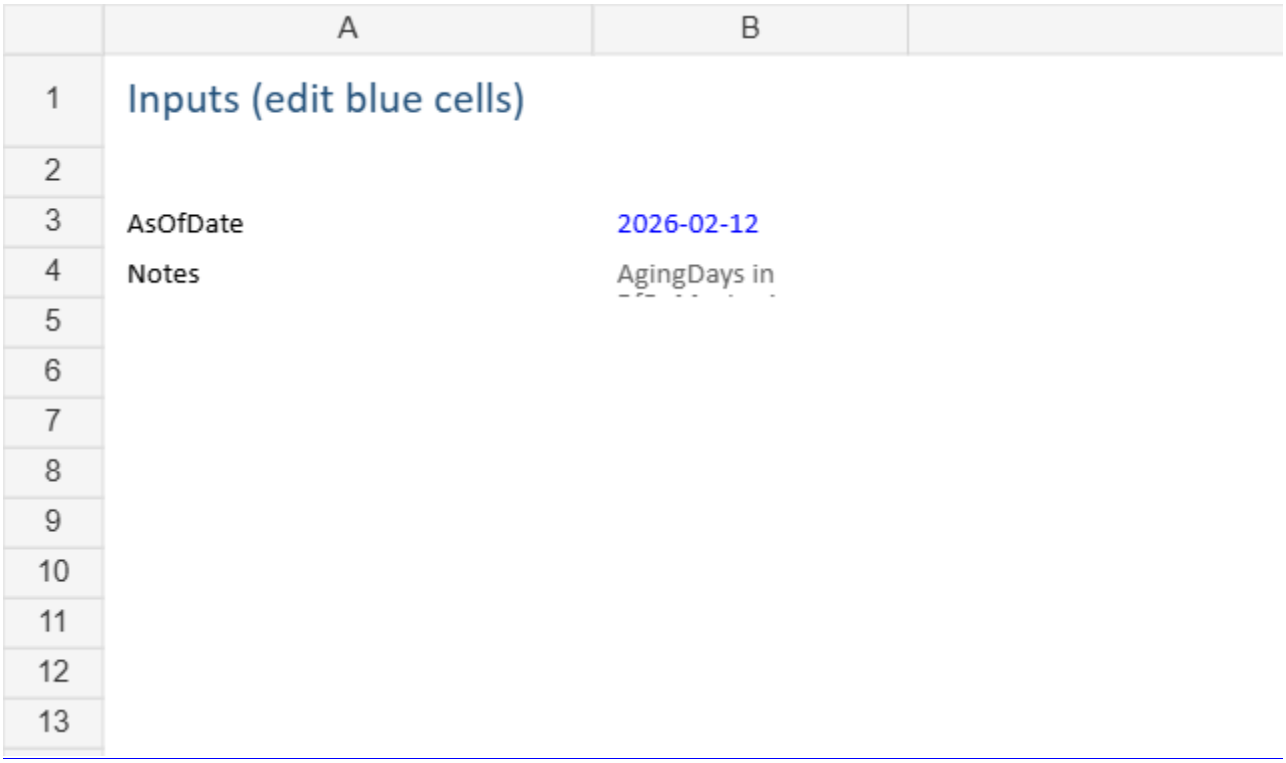
FedNow and RTP are identical.
The real difference is treasury routing and network governance.

From a platform standpoint:

The power is not the rail.
The power is the real-time GL automation tied to ISO 20022 events.

We have built a **merchant-centric Excel + Power Pivot-ready model** (with sample data) and a **Mermaid state-machine** for **RfP lifecycle → GL posting triggers**.

RealTimePayments_RfP_Accounting_PowerPivot_Model.xlsx



InputsReadMeDim_MerchantDim_AccountsRfP_MasterRfP_Status_HistorySettlement_EventsGL_LinesMeasures_DAXMapping_RulesPivot_Template

What's inside the workbook (Power Pivot–ready tables)

Tables are already formatted as Excel Tables (so you can **Add to Data Model** easily):

- tblRfP_Master (QBO-style Outstanding RfP queue)
- tblRfP_Status_History (state changes)
- tblSettlement_Events (settlements / returns placeholder)
- tblGL_Lines (double-entry lines; 1 row = 1 debit or credit line)
- tblDimMerchant, tblDimAccounts (dimensions)

- Measures_DAX (copy/paste measures)

Inputs

- Inputs!B3 = **AsOfDate** (used for AgingDays)

Power Pivot relationships (recommended)

In **Power Pivot → Diagram View**:

- tblRfP_Master[RfP_ID] 1→* tblRfP_Status_History[RfP_ID]
- tblRfP_Master[RfP_ID] 1→* tblSettlement_Events[RfP_ID]
- tblRfP_Master[RfP_ID] 1→* tblGL_Lines[RfP_ID]
- tblDimMerchant[MerchantMID] 1→* tblRfP_Master[MerchantMID] and tblGL_Lines[MerchantMID]
- tblDimAccounts[Account] 1→* tblGL_Lines[Account]

We have present a tailored the workbook to include:

- **Operating Cash vs Rail Clearing vs Undeposited Funds**
- **Per-bank settlement / clearing accounts**
- **Per-MID basis selection (Cash vs Accrual)**
- **Fee models (percent+fixed / flat)**
- **Refunds + optional rail→operating sweeps**
- A **ready Dashboard page** + **Power Pivot-ready tables**
- A dedicated sheet with the **Mermaid state-machine** (RfP lifecycle → GL triggers)

RealTimePayments_RfP_Tailored_COA_PowerPivot_MerchantCentric.xlsx

	A
1	Real-Time Payments (FedNow + RTP) — Tailored COA + Merchant-Centric
2	
3	Includes: Operating Cash vs Rail Clearing vs Undeposited Funds, per-bank clearing accounts,
4	per-MID basis selection, fee models, refunds, and optional rail-to-operating sweep postings.
5	
6	Power Pivot relationships:
7	tblRfP_Master[RfP_ID] 1→* tblRfP_Status_History[RfP_ID]
8	tblRfP_Master[RfP_ID] 1→* tblSettlement_Events[RfP_ID]
9	tblRfP_Master[RfP_ID] 1→* tblGL_Lines[RfP_ID]
10	tblDimMerchant[MerchantMID] 1→* tblRfP_Master[MerchantMID], tblGL_Lines[MerchantM
11	tblDimAccounts[Account] 1→* tblGL_Lines[Account]
12	
13	
14	

READMEInputsDimAccountsDimMerchantBankSettlementFeeModelsGLRulesRfP_MasterRfP_Status_HistorySettlement_EventsGL_LinesMeasures_DAXDashboardMermaid_StateMachine

- **P&L view**, **Balance Sheet view**, or **Outstanding Queue + Aging** as the primary landing page.

Present “ready-to-use pivot dashboard page” to be fully built as PivotTables (not just the KPI dashboard + pivot build instructions), tell me whether you want: P&L view, Balance Sheet view, or Outstanding Queue + Aging as the primary landing page

RealTimePayments_RfP_Full_Pivot_Dashboard.xlsx

	A
1	Real-Time Payments (FedNow + RTP) — Tailored COA + Merchant-Centric
2	
3	Includes: Operating Cash vs Rail Clearing vs Undeposited Funds, per-bank clearing accounts,
4	per-MID basis selection, fee models, refunds, and optional rail-to-operating sweep postings.
5	
6	Power Pivot relationships:
7	tblRfP_Master[RfP_ID] 1→* tblRfP_Status_History[RfP_ID]
8	tblRfP_Master[RfP_ID] 1→* tblSettlement_Events[RfP_ID]
9	tblRfP_Master[RfP_ID] 1→* tblGL_Lines[RfP_ID]
10	tblDimMerchant[MerchantMID] 1→* tblRfP_Master[MerchantMID], tblGL_Lines[MerchantM
11	tblDimAccounts[Account] 1→* tblGL_Lines[Account]
12	
13	
14	

README Inputs Dim Accounts Dim Merchant Bank Settlement Fee Models GL Rules RfP_Master RfP_Status_History Settlement_Events GL_Lines Measures_DAX Dashboard Mermaid_StateMachine Dashboard_Pivots

What's included on the new **Dashboard_Pivots** page:

1 P&L View

- Revenue accounts
- Expense accounts
- Net signed balances (Debit positive / Credit negative)

2 Balance Sheet View

- Operating Cash
- Rail Clearing (FedNow / RTP)
- A/R
- Other balance sheet accounts
- Signed ending balances

3 Outstanding Queue + Aging

- Current
- 1 Day
- 2–3 Days

- 4+ Days
- Total open exposure
