

Cost worksheet instructions

Open the [CSV](#) in Excel, LibreOffice Calc or Google Sheets using comma-separated import and formula interpretation. Keep the header on row 1 and the original row order: formulas reference column B by row. This file intentionally contains spreadsheet formulas. Do not import it as a plain-text-only table if you want calculations.

What to edit

Edit column B in rows 2-30 and baseline row 51. The nonzero values are illustrative arithmetic inputs, not typical customer usage, supplier prices or deployment estimates. Zero supplier rates mean **unknown**, not free. Replace every applicable input with measured values or dated quotes, then set B29 and B30 to 1 only when the underlying checks are actually complete. Record quote URLs, quote dates, provider/model/region, billing increment and exclusions in column D.

All costs use USD. Convert other currencies at your approved dated exchange rate before entry. Fractions are decimals: enter 0.6 for 60%, not 60. Duration is in minutes; labor is USD per hour; LLM price is USD per **one million tokens**; TTS price is USD per **one million characters**. If a provider uses another unit, convert it before entering a rate. A blended LLM rate must account for your input/output/cached-token mix. Do not add a separate component charge if it is already included in a bundled runtime quote.

The model includes unanswered attempts, connected runtime, speech/model costs, phone numbers, infrastructure, storage, human follow-up, quality review, amortized implementation and contingency. Human follow-up uses answered calls as its denominator; add follow-up on unanswered attempts in other monthly costs if applicable. Carrier legs, transfer legs, rounding, minimum commitments, retry rules, taxes, peak-capacity charges, training, supervision and support may require additional amounts in row 28. Avoid counting a bill twice.

How to interpret results

- Row 46: modeled monthly cost, including amortized implementation and contingency.
- Rows 47-48: modeled cost per attempt and per answered call. These are different denominators.
- Row 49: initial engineering cash cost. It is also spread over row 25's amortization period in the monthly model; do not add it a second time when making an amortized comparison.
- Row 50: input check. The default is explicitly **ILLUSTRATIVE OR INVALID - NOT A QUOTE**. "Confirmed inputs" means your flags and numeric ranges pass; it is not independent validation of source evidence.
- Row 51: comparable measured baseline monthly cost. Leave zero if unknown. Use the same call types, period, service level and cost scope.
- Rows 52-53: modeled difference from baseline, shown only after inputs are confirmed and baseline is positive. These are **not measured savings, ROI, or a revenue forecast**. A negative value means the modeled workflow costs more.

Arithmetic check with the untouched sample

The illustrative inputs yield 600 answered calls, 400 unanswered attempts and 1,800 connected minutes. Because supplier rates remain unknown/zero, the visible subtotal is incomplete: human follow-up is \$360, quality review \$120, amortized implementation \$125, subtotal \$605 and contingency \$90.75, for \$695.75. This is a formula sanity check, **not a usable price estimate**. The one-time illustrative implementation cost is \$1,500. The validation flag must stay unconfirmed and baseline differences blank.

Before using a decision estimate, reconcile one actual provider invoice or approved quote against the model, compare an independent hand calculation, test a zero-call and invalid-fraction input, and verify the validation flag changes appropriately. Retain the assumption sheet with the date of the business decision; do not reuse an old quote silently.