IT Cost Modeling: Finding the “Sweet Spot”

Lauren Fulton, Senior IT Finance Advisor
IT and Finance often have different perspectives on the service catalog and service costing methodologies.

**SIMPPLICITY**
- Easier to digest; more actionable
- Easier to maintain & repeat
- Management gravitates toward simplicity

**COMPLEXITY**
- Accuracy often drives complexity up; lack of accuracy can damage credibility
- Poor data quality can drive complexity
- Accountants and IT gravitate toward complexity
IT Finance should take the following items into consideration to strike a balance and avoid alienating stakeholders.

- Credibility
- Maintainability
- Materiality Thresholds
- Fit with Strategy
- Desired Behavior
- Precision vs. Accuracy
- Corporate Culture
- Data Availability
Salads

Salad Bar >

- Charge out individual salads depending on the ingredients
- Users know they can reduce their price based on toppings

- Create salad offerings
- Can have higher prices for special toppings or protein

< Menu
Unix Servers are often broken out separately due to higher acquisition and maintenance costs. They can also require higher rates of data center power.

**Unix Servers**

- Avoid going to extreme of treating all servers equally
- Group similar assets into services
- Allow for cost components to be layered in based on the type of asset

**Asset-level**

- Allocate D&A, power, labor to individual assets
- Assets are charged to consumers
- Effectively, each asset is treated like a separate service
Tableau

- Charge out individual software packages that are highly specialized or material in cost
- Educate users on how to return unused licenses and reduce their bill

- Bundle common or non-material software packages into End User Services or a Desktop/Laptop service
- Avoid long, itemized bills

Software-level >
Chipotle and Qdoba both understand the cost of guacamole but have different strategies.

**Guacamole**

- **Service**
  - Chipotle charges separately for guacamole
  - They remind customers before adding guacamole so they are not surprised at the register

- **Cost Component**
  - Qdoba includes guacamole in the price of main dishes
  - Their customers did not want to be “nickel and dimed”
  - Looking to increase repeat customers
Network - WAN

Service vs. Cost Component

- Layer into the service cost of compute platforms if there is no distinct lever for consumer
- Can use dynamic spread, port or device counts, or bandwidth by platform

Service >

- Charge network based on port counts or traffic analysis
- Requires defendable usage data, which is often difficult to collect

< Cost Component
Labor Services

Services

- Application development and maintenance are generally allocated to consumers
- Generally requires time-tracking data to be defendable
- Complexity around number of labor rates – see Appendix for more information

Cost Component

- Layer in the cost of management overhead and infrastructure support into Services
Restaurant

- Weight the cost of the restaurant to dishes based on the cost of ingredients
- Simple math

Dynamic Spread

- Restaurant Owner can use an estimate of space required to store and prepare each dish
- Requires analysis and consideration of desired outcome

Metrics
Dynamic Spread vs. Metrics

Data Center

Power usage or rack units are commonly used to allocate facility costs to IT Services

Metrics >

- Weight the cost of the data center to services based on their total service cost
- Simple and avoids cumbersome or frequent data refreshing

- Expose a lever the Service Owner can use to manage the cost of service
- Can be more defendable depending on data quality

< Dynamic Spread
Percent of use ties billing directly to the GL and is where companies often start

**PROS**
- Billing reports will tie to GL without a true-up
- Billing reports contain a more accurate reflection of costs

**CONS**
- Rates require monthly due diligence to ensure expenses are mapped accurately
- One-time expenses or credits will cause the rate to spike or potentially be negative
- Fluctuating rates are difficult for the consumer to understand and predict
- Focus is on total spend by service instead of driving the unit cost down
Setting rates annually allows consumers to focus on what they can control – usage.

**PROS**

- Simpler to calculate and predictable for consumers
- Consumers can focus on their lever to reduce costs, which is their consumption of IT Services
- IT can operate like a business and set rate reduction targets
- Can set a price higher or lower than the rate calculated in the cost model to drive different behaviors (e.g. incent the use of newer technology)

**CONS**

- If billing reports need to tie to GL, manage over/under recovery through true-ups
- Must have proper analytics in place to charge over/under (eg: rate vs volume variances)
- Rates need to be monitored for accuracy
Establishing direct services can improve transparency but can also increase complexity quickly

**PROS**

- Highly specialized hardware or software is segregated and will not increase rates for the other consumers
- Can drive specific behaviors by creating a separate lever

**CONS**

- Can drive complexity for both Finance and IT partners
- Increases overall number of Services to manage
- Consumer may not understand fluctuations in cost
- Reducing usage may not immediately impact cost
Burritos

Fixed Rate>

- Restaurant Owner sets a price per burrito or type of burrito
- Owner must consider fluctuating produce prices
- Price includes an assumed amount of spoilage
- Monitor cost of ingredients, labor, and overhead expenses to see if burrito price needs to be adjusted
Mainframe

Rate vs. % of Use

Fixed Rate >

- Consumer can reduce bill by using less CPU Seconds or MIPS
- Service Owner can benchmark rate internally

% of Use >

- Consumer may react to variability in cost each month if usage is flat
- Service Owner will need to understand and explain spikes in payments, one-time events
Rate vs. Direct

**Seafood**

- **Direct >** *(Market Price)*
  - Routinely change the price based on cost of ingredients, typically reserved for expensive dishes
  - Consumers know upfront that the prices will vary over time
  - Restaurant Owner will include markup for preparation and overhead

- **Fixed Rate >**
  - Consumers expect a certain price based on historical visits
  - Restaurant Owner assumes risk of sudden cost increases
Data Appliance

- Maintain fewer services and allocation methodologies by including in server rates
- Specialized infrastructure may increase rates broadly

**Direct >**

- Able to expose additional cost driver and influence behavior
- Consumers may ask for more services to be created, increasing complexity

**Fixed Rate >**
There’s no silver bullet for IT Cost Modeling

Consider user behavior, materiality, and other factors before deciding on an allocation strategy

Allocations can evolve over time as your ITFM program matures
## Labor Rates

### Options – Rate Levels

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Simple</strong></td>
<td><strong>Does not take into account the type of resource</strong></td>
<td><strong>Monitor average IT Labor Rate periodically</strong></td>
</tr>
<tr>
<td><strong>Focus on work effort and not resource mix</strong></td>
<td><strong>Can be perceived as “less accurate”</strong></td>
<td><strong>Periodic True Up of costs</strong></td>
</tr>
<tr>
<td><strong>Easy to estimate ROM for new project</strong></td>
<td><strong>Over/Under Recovery</strong></td>
<td><strong>Possible True Up of Rates during the year</strong></td>
</tr>
<tr>
<td><strong>More accurate recovery</strong></td>
<td><strong>Project Variances involve both type of resource mix and volume variances</strong></td>
<td><strong>Rate analysis to determine the salary ranges by job family</strong></td>
</tr>
<tr>
<td><strong>More accurate Project Costs</strong></td>
<td><strong>Over/Under Recovery</strong></td>
<td><strong>Need consistent application of Job Families across IT</strong></td>
</tr>
<tr>
<td><strong>Most accurate recovery</strong></td>
<td><strong>Visibility into Resource Salaries</strong></td>
<td><strong>Monitor average IT Labor Rate by Job Family periodically</strong></td>
</tr>
<tr>
<td><strong>Most accurate Project Costs</strong></td>
<td><strong>Project Variances involve both resource mix and volume variances</strong></td>
<td></td>
</tr>
<tr>
<td>Pros</td>
<td>Cons</td>
<td>Requirements</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>--------------</td>
</tr>
<tr>
<td><strong>Options – Frequency of Rate Calculation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Calculate Annually</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Simple</td>
<td>• Over/Under Recovery</td>
<td>• Monitor Rate changes based on variances to productive hour, usage (demand), and salary/expense assumptions</td>
</tr>
<tr>
<td>• Predictable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Calculate Monthly</strong></td>
<td></td>
</tr>
<tr>
<td>• More accurate recovery</td>
<td>• Complexity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Fluctuating rates – hard for customers to understand</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inequitable Project costing based on seasonality of PTO</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Calculate YTD Monthly</strong></td>
<td></td>
</tr>
<tr>
<td>• Most accurate recovery</td>
<td>• Complexity</td>
<td></td>
</tr>
<tr>
<td>• Most accurate Project Costs</td>
<td>• Fluctuating rates – hard for customers to understand</td>
<td></td>
</tr>
</tbody>
</table>