
regoUniversity
SAN DIEGO · 2023
Designing a TBM Model that is Defensible
Your Guides:
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Sponsored by
APPTIO

Your Guides

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- Skiing, Hiking and General Aviation

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- 10 years of TBM/Apptio Experience
- Soccer, Skiing and Camping

Agenda

- Introduction
- Characteristics of a defensible model
- Steps to build an accurate TBM model
- Allocation best practices

Objectives

Upon completing this session, participants should be able to:

- Understand what a defensible Apptio cost model is
- Understand the steps involved in building a defensible Apptio cost model
- Understand Apptio allocation best practices

Introductions

- Take 5 Minutes
- Turn to a Person Near You
- Introduce Yourself
- Business Cards

Open Mic

- What is a defensible cost model?
- Do you believe your model is defensible?
- How do you ensure your model is defensible?

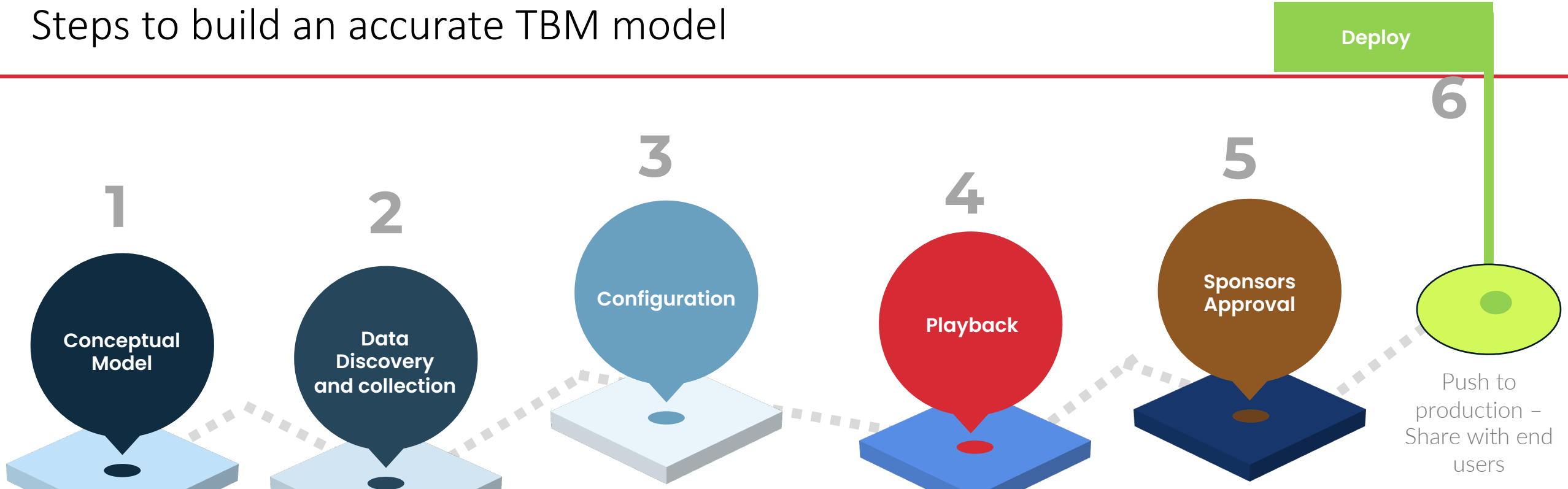
Characteristics of a Defensible Model

ALL ASSUMPTIONS, RULES, AND MAPPING ARE APPROVED BY APPROPRIATE STAKEHOLDERS

DETAILED MODEL DOCUMENTATION IS AVAILABLE

QUESTIONS CAN BE ANSWERED USING DATA AND REPORTS FROM THE MODEL

Steps to build an accurate TBM model

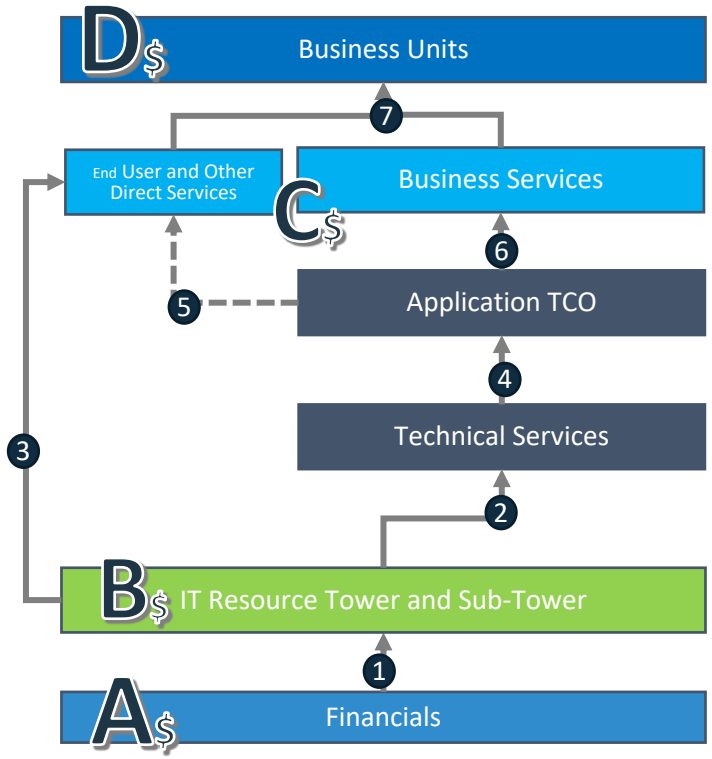


Document data sources, data owners, allocation/mapping rules, all decisions and all exceptions

Step 1: Conceptual Model

- Align with TBM sponsors' vision and expectation
- Design a conceptual model based on the vision and expectation
- Obtain sign-off on the conceptual model
- Store the conceptual model in a document repository

Example of High-Level End to End Conceptual Model



$A_{\$} = B_{\$} = C_{\$} = D_{\$}$

1. Using mappings, rules, and additional financial and operational data such as vendor, project, headcount, etc. 100% of the budget is mapped to standard ATUM towers and sub-towers
2. A large portion of IT Resource Towers/sub-towers are mapped/allocated to technical services (these are services such as servers, storage, database, etc. that IT uses to host and support applications
3. Some IT Resource Towers/sub-towers are mapped directly to End User services or other direct services such as business sponsored projects, managed services etc.
   - **IT sets rates at this layer**
4. Technical services are mapped to applications based on mapping and consumption
5. Applications are mapped to business services based on functions
6. Some applications are mapped to End user services and other Direct services
7. Services are mapped/allocated to business units based on consumption or direct ownership

Step 2: Discovery

Objectives

- Explore and collect available data
- Align on owners and source of records
- Align on allocation and mapping rules

Approach

- Meet with data owners and service owners (schedule multiple meetings based on type of data: financials, infrastructure etc.)
- Inform on why data is needed and how it will be used in the model
- Provide information on data needed: must have, good to have, nice to have (refer to Apptio data advisory)
- Accept whatever is available: do not wait for perfect data (it is preferred that data goes directly from source to destination – Avoid manual manipulation)
- Discuss data refresh schedule (e.g., monthly, quarterly, etc.
- Discuss logistics for data collection (e.g., datalink, shared folders, etc.)
  - Avid sending data by email
- Advise that you come bac and share the output after modeling

Step 3: Configuration

Objectives

- Model data collected during discovery

Approach

- Develop a model with associated reports based on data collected
- Align with conceptual model as well as mapping and allocation rules agreed upon during discovery
- Document the model
- Follow modeling best practices.
  - Use allocation good/better/best approach
  - Refrain from building complex exception rules.
    - Can it be explained quickly without a lot of visual aid?

Step 4: Playback

Objectives

- Obtain feedback/approval from data and service owners on the model

Approach

- Meet with stakeholders from the discovery step
- Review data and all allocations implemented in Apptio
  - Show all data transformation steps
  - Show that allocation rules align with what the approved during discovery
- Review all associated reports
- Highlight data gaps and advise on maturity roadmap
- Obtain feedback
- Repeat this step until approval
- Document and store all feedback and approvals

Step 4: Playback

Objectives

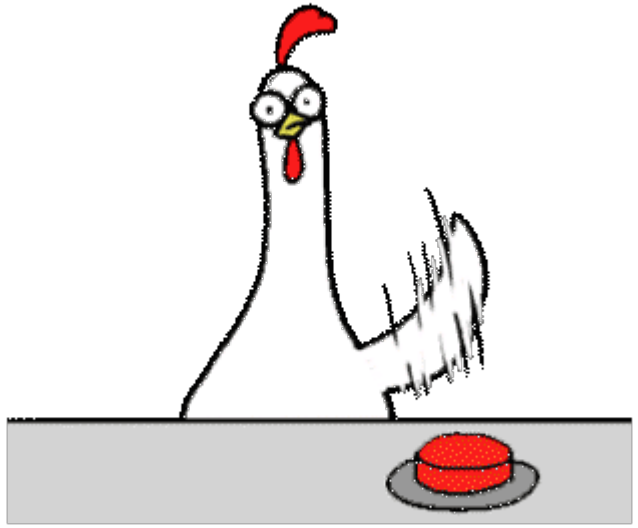
- Obtain feedback/approval from TBM sponsors on the model

Approach

- Meet with TBM sponsors (usually these are recurring meetings)
- Review the model, allocation rules and reports
  - Keep this report very high level
- Highlight data gaps and advise on maturity roadmap
- Discuss roadblocks/risks and how the sponsors can help
- Obtain feedback
- Repeat this step until approval
- Document and store all feedback and approvals

Step 5: Deploy

We did it! Now time to push to production



Production

TBM Best Practices

Defensible Cost Model/Metrics

document and validate cost allocation methodologies and assumptions

Repeat

Not just a one time effort – track progress over time

Track Usage Metrics

usage of IT services changes over time. If the TCO of a service increases, did IT become less efficient, or did the organization just use more of it? Without tracking usage you won't know

Calculate Unit Costs

cost per employee, cost per incident, cost per X. This gives TCO perspective, and is useful in benchmarking against other organizations or industry standards

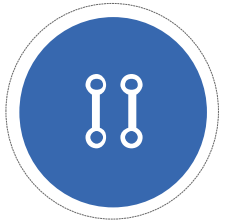
Put TBM in context

show the quality & business value services and applications produce

Build Roadmap

a three- to five-year plan for cost model evolution. Don't expect high maturity on your first attempt

Reasons TBM Initiatives Fail

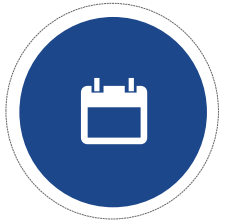


Analyze Lag Time

Data freshness is key. What often happens is that TCO is assessed when a reconciliation with finance occurs (annually), when it's already too late to address issues. If the TBM team is updating financial and infrastructure data monthly and looking at their costs, then TCO can provide actionable insight.

Indefensible

TCO alone, without clear context of how it was calculated will not be trusted by application owners, service owners, or IT leaders .



Over-Simplified

Just peanut butter spreading costs across apps and services doesn’t add enough insight to make TCO useful.

Complicated

Complex calculations using inaccessible tools/data like spreadsheets lead to a TCO model that few understand. No one will accept the output if they can’t understand how you got there.

Cost Allocation Methods

- Many costs that go into TCO are indirect, making it difficult to tie to a single application, service, or capability
- To handle these costs, develop allocation methods – intelligent ways of assigning out shared costs
- Similar to activity-based costing used for manufacturing, we define activities that drive IT spending, and use these as a basis for assigning costs

Assumption Based

e.g. IT shared service costs allocated to applications based on “thumb in the wind” percentages

Attribute Based

e.g. application costs allocated across business units based on the number of assigned login accounts per business unit

Consumption Based

e.g. support costs allocated to applications based on the number of support tickets per application

Allocation Best Practices

- Do you have any unique / creative allocation methods you'd like to share?
- Are there any allocations you're struggling to make?

More information on Allocation best practices

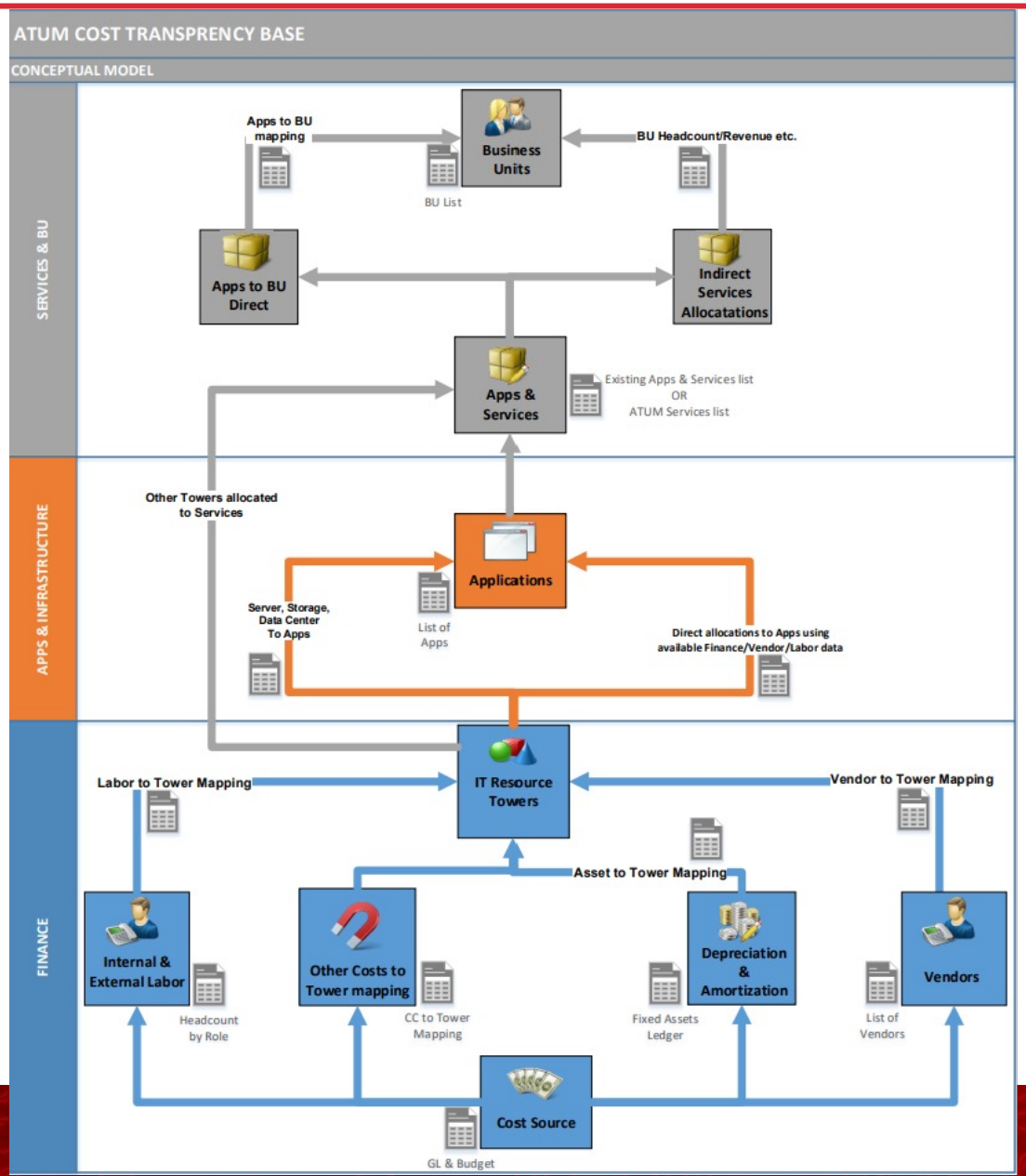
Microsoft
werPoint Presentat

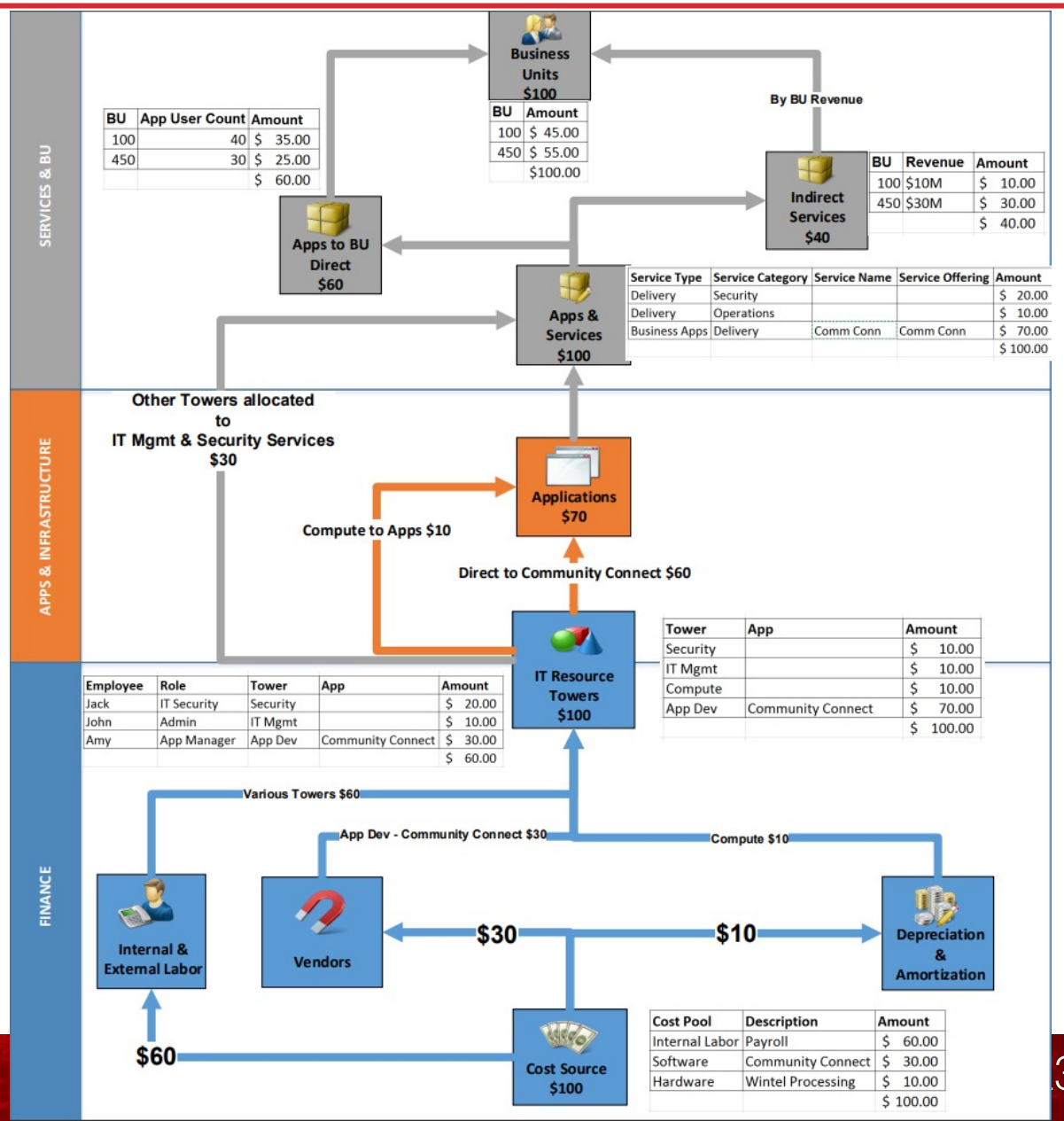
Questions?

Surveys

Please take a few moments to fill out the class survey.
Your feedback is extremely important for future events.

Conceptual Model Examples





BU	App User Count	Amount
100	40	$ 35.00
450	30	$ 25.00
		$ 60.00

BU	Amount
100	$ 45.00
450	$ 55.00
	$100.00

BU	Revenue	Amount
100	$10M	$ 10.00
450	$30M	$ 30.00
		$ 40.00

Service Type	Service Category	Service Name	Service Offering	Amount
Delivery	Security			$ 20.00
Delivery	Operations			$ 10.00
Business Apps	Delivery	Comm Conn	Comm Conn	$ 70.00
				$ 100.00

Tower	App	Amount
Security		$ 10.00
IT Mgmt		$ 10.00
Compute		$ 10.00
App Dev	Community Connect	$ 70.00
		$ 100.00

Employee	Role	Tower	App	Amount
Jack	IT Security	Security		$ 20.00
John	Admin	IT Mgmt		$ 10.00
Amy	App Manager	App Dev	Community Connect	$ 30.00
				$ 60.00

Cost Pool	Description	Amount
Internal Labor	Payroll	$ 60.00
Software	Community Connect	$ 30.00
Hardware	Wintel Processing	$ 10.00
		$ 100.00

Cost Source to Labor

Good	Better	Best
Relationship: Cost Centre **Weighting:** None – evenly spread to all employees **Pros:** Allocates labour costs to resources within the cost centre **Cons:** Does not differentiate between internal and external labour costs. There is also no weighting of the costs to reflect the actual cost of an employee.	**Relationship:** Type of employment i.e. Internal External **Weighting:** Role or salary band **Pros:** More accurate cost distribution **Cons:** May expose salary bands	**Relationship:** Time spent from a time tracking tool. **Weighting:** Rate and time **Pros:** Defensible and accurate allocation. Tracks very well to labour spend **Cons:** Many time reporting systems do not have “good” data (availability or quality) or categories that align to ITRST or services.

Data Source

GL accounts codes or profit centers that are mapped as Internal labour or External labour should feed the cost to the labour object.

Common Source Systems

- SAP Enterprise Resource Planning
- Oracle E-Business Suite Financials
- Oracle Peoplesoft Financial Management
- Oracle Hyperion EpM
- Oracle JD Edwards EnterpriseOne Financial Management
- IBM Cognos TM1
- Adaptive Insights
- Infor Lawson
- Microsoft Dynamics
- Netsuite

Cost Source to Fixed Assets

Good	Better	Best
Relationship: Cost Center	**Relationship:** Asset Category	**Relationship:** Asset Category
Weighting: None – Even Spread	**Weighting:** None – Even Spread	**Weighting:** Monthly Depreciation Amount
Pros: Costs will flow in the model to all assets in the cost centre	**Pros:** The costs will be segregated between Hardware and Software	**Pros:** Best cost distribution as it is based on the actual value of the depreciation.
Cons: No differentiation of Hardware vs Software depreciation	**Cons:** All assets receive the same cost, regardless of their depreciation amount	**Cons:** Many fixed asset systems may not be at the level needed to perform this allocation, and mapping to towers may be complex

Data Source

GL account codes or cost centers that have depreciating assets that are part of the IT organisation. Line items with this characteristic should be source of cost to fixed assets

Common Source Systems

- SAP Enterprise Resource Planning
- Oracle E-Business Suite Financials
- Oracle Peoplesoft Financial Management
- Oracle Hypereion EpM
- Oracle JD Edwards EnterpriseOne Financial Management
- IBM Cognos TM1
- Adaptive Insights
- Infor Lawson
- Microsoft Dynamics
- Netsuite

Cost Source to Vendor

Good	Better	Best
Relationship: Cost Center **Weighting:** None – Even Spread **Pros:** Cost will flow within the model **Cons:** If multiple vendors exist in a cost centre, they will attract the same cost	**Relationship:** Vendor ID **Weighting:** None – Even Spread **Pros:** Costs related to each vendor and a defensible allocation strategy. **Cons:** If there are multiple contracts pertaining to a vendor, they will all have the same cost	**Relationship:** Vendor ID **Weighting:** Vendor spend/contract amount **Pros:** Costs related to each vendor, split by contract, and a defensible allocation strategy. **Cons:** Need a current list of vendors that is always updated.

Data Source

GL account codes or cost centers that have a specific cost to a vendor normally marked by the vendor ID column.

Common Source Systems

- SAP Enterprise Resource Planning
- Oracle E-Business Suite Financials
- Oracle Peoplesoft Financial Management
- Oracle Hypereion EpM
- Oracle JD Edwards EnterpriseOne Financial Management
- IBM Cognos TM1
- Adaptive Insights
- Infor Lawson
- Microsoft Dynamics
- Netsuite

Cost Source to Projects

Good	Better/Best
Relationship: Cost Center	**Relationship:** Project ID
Weighting: None – Even Spread	**Weighting:** None – Spread per project
Pros: Cost will flow	**Pros:** Each line of the GL that refers to a project is cleared marked
Cons: Costs will be spread to all projects in that cost centre evenly	**Cons:** Needs integration between the project tool and the GL so that the information flows correctly.

Data Source

GL account codes or cost centers that have a specific cost related to a project spend.

Common Source Systems

- SAP Enterprise Resource Planning
- Oracle E-Business Suite Financials
- Oracle Peoplesoft Financial Management
- Oracle Hypereion EpM
- Oracle JD Edwards EnterpriseOne Financial Management
- IBM Cognos TM1
- Adaptive Insights
- Infor Lawson
- Microsoft Dynamics
- Netsuite

Status Report

From	To	Good	Better	Best	Obs.
Cost Source	labour				
Cost Source	Fixed Assets				
Cost Source	Vendor				
Cost Source	Projects				

Labour to IT Resource Towers

Good	Better	Best
Relationship: User Managed Table **Weighting:** N/A **Pros:** Allocation according to the SME experience and knowledge of the team. **Cons:** Process heavily dependent on human input. If SME leaves the company the process will be affected.	**Relationship:** Role mapping to ITRT **Weighting:** N/A **Pros:** Defendable and clear allocation methodology with less human dependency **Cons:** Roles may not be granular enough for accurate mapping i.e. Server Support instead of Wintel or Unix Support	**Relationship:** Time Tracking task mapping to ITRT **Weighting:** N/A **Pros:** Accurate cost allocation based on actual time spent of labour resource **Cons:** Need an accurate timesheet system, with tasks granular enough to map to specific ITRT's. Rare for all employees to submit timesheets

Data Source

Every row in the labour/Time Tracking Master dataset needs to have the IT Resource Tower and Sub-Tower columns populated with valid values in order for the costs to flow correctly

Common Source Systems

- Workday
- Oracle Peoplesoft Financial Management
- Oracle Human Capital Management
- Oracle Hyperion EPM
- SAS SuccessFactors

Fixed Assets to IT Resource Towers

Good	Better	Best
Relationship: User Managed Table **Weighting:** N/A **Pros:** Allocation according to the SME experience and superior knowledge of the data. **Cons:** Process heavily dependent on human input. If SME leaves the company the process will be affected. Also this approach is only as accurate as the estimates for the %'s of asset types to the different resource towers.	**Relationship:** Tablematch (identify key words in asset descriptions to match to ITRT) **Weighting:** N/A **Pros:** Can be a quick win way to map a large FAR to ITRT, where manual intervention would be too cumbersome. **Cons:** Is only as good as your tablematch logic – things may be incorrectly mapped if they share similar keywords. Can also have performance impact if too many wild cards used against large dataset.	**Relationship:** FA line Items to ITRT **Weighting:** N/A **Pros:** Defendable and clear allocation methodology. Can be very powerful if introduced as fields in the FAR source system. **Cons:** The mapping to ITRT might be very cumbersome, and needs a good knowledge of the data.

Data Source

Fixed asset register/depreciation schedule.

Common Source Systems

- SAP Enterprise Resource Planning
- Oracle E-Business Suite Financials
- Oracle Peoplesoft Financial Management
- Oracle JD Edwards EnterpriseOne Financial Management
- Infor Lawson
- Microsoft Dynamics
- Netsuite

Other Cost Pools to IT Resource Towers

Good

Relationship: User Managed Table

Weighting: Specified by SME

Pros: Allocation according to the SME experience and superior knowledge of the data.

Cons: Process heavily dependent on human input. If SME leaves the company the process will be affected. Also this approach is only as accurate as the estimated mappings to the different resource towers.

Better/Best

Relationship: Allocate other costs by cost center to IT Resource Sub-Tower based on detailed mapping of journal entries from ledger.

Weighting: SME/Finance specified

Pros: Most accurate and automated process

Cons: May require manual intervention to map specific journal entries to a specific ITRST.

Data Source

Other costs mapped to ITRT, this means costs that did not go through any other specific object.

Common Source Systems

- SAP Enterprise Resource Planning
- Oracle E-Business Suite Financials
- Oracle Peoplesoft Financial Management
- Oracle JD Edwards EnterpriseOne Financial Management
- Infor Lawson
- Microsoft Dynamics
- Netsuite

Vendor to IT Resource Towers

Good	Better/Best
Relationship: Mapping from each line on the vendor object to an ITRT (assumes vendors object split by ITRT) **Weighting:** N/A **Pros:** The numbers will flow. **Cons:** Likely to be a very basic list of vendors, resulting in lack of details in the data shown of reports	**Relationship:** Allocate per vendor with the correct % spread per ITRT based on sub contracts or PO information **Weighting:** N/A **Pros:** Vendor list available giving clear data and information for ITRT mapping and reports **Cons:** Need of a well maintained and updated vendor list with clear understanding of spend for this approach to work

Data Source

Vendor information normally from a segregated IT vendors list.

Common Source Systems

- SAP Ariba
- Coupa
- Zycus
- BravoSolution
- Ivalua

Status Report

From	To	Good	Better	Best	Obs.
labour	ITRT				
Fixed Assets	ITRT				
Other Costs	ITRT				
Vendor	ITRT				

IT Resource Towers to Network Devices

Good

Relationship: Even Spread to Network Devices within ITRST

Weighting: Even Spread

Pros: The numbers will flow. If no data associating GL and FA line items with Network Devices can be obtained, and no port count data is available then you may distribute costs evenly

Cons: No precision on the allocation, causing lack of details in the data affecting reports

Better/Best

Relationship: ITRT to Network Device ID using metadata

Weighting: Number of ports or port type

Pros: Precise and defensible allocation

Cons: This assumes customer has a readily-available inventory of all Ports, Devices, and Handsets. Sometimes this type of data is not closely managed

Data Source

Information on Network LAN, Network WAN and Network Voice costs

Common Source Systems

- SolarWinds
- CA Spectrum
- CiscoWorks
- NetScout Systems
- Riverbed
- Viavi Solutions

IT Resource Towers to Server/Physical Server

Good	Better	Best
Relationship: ITRST **Weighting:** Even Spread **Pros:** The number will flow from one object to another. **Cons:** A even spread here is really bad for your search for transparency, as all servers within an architecture will attract the same cost, so this should be your last resort	**Relationship:** ITRST **Weighting:** CPU cores, installed memory, power usage, calculated coefficient of all of these **Pros:** Defendable and clear allocation methodology which effectively weights across the architecture based on assumed cost of compute **Cons:** Does not take into account sub-architectures i.e. Unix is not split into AIX, HP-UX, Solaris etc.	**Relationship: I**TRST and metadata **Weighting:** #CPU cores, installed memory, power usage, calculated coefficient of all of these **Pros:** Within the Compute IT Resource Tower, we also have Sub-Towers for Wintel, Linux, Unix, iSeries, Midrange, and Mainframe. If the Physical Servers data has a corresponding attribute (typically via OS or Platform columns), it is possible to create a key and set up a data-based relationship so that each sub tower sends costs only to matching Physical Servers **Cons:** Need very accurate information. Also, some data normalization might be needed

Data Source

Information from the CMDB or system of record for compute assets

Common Source Systems

- VMware vCenter
- SCCM
- ServiceNow CMDB
- BMC Atrium CMDB
- BMC Discovery
- HP UCMDB

IT Resource Towers to Data Centers

Good		Better/Best
Relationship: ITRST **Weighting:** Even Spread **Pros:** Costs will flow. **Cons:** No precision on the allocation – all datacenters will effectively cost the same, regardless of size	**Relationship:** ITRST **Weighting:** Square footage, rack units, available power, number of ports **Pros:** Defensible allocation based on usable capacity of data center **Cons:** Does not take into account specific costs related to a data center	**Relationship:** ITRST and metadata **Weighting:** Square footage, rack units, power consumption, number of ports **Pros:** Precise and defensible allocation based on information specific to a datacenter i.e. if there is a contract pertaining to one datacenter, you would use metadata to ring-fence this cost and allocate it directly to that location **Cons:** N/A

Data Source

Source of information for data centres including metrics such as size, occupancy and power usage

Common Source Systems

- ServiceNow CMDB
- BMC Atrium CMDB

IT Resource Towers to End User Devices

Good		Better/Best
Relationship: ITRST **Weighting:** Even Spread **Pros:** The numbers will flow from the Desktops, Mobile Devices based ITRST **Cons:** No precision on the allocation i.e. does not distinguish between different desktop machine specs or support levels	**Relationship:** ITRST **Weighting:** Device type or level of support **Pros:** Better management of costs and distribution **Cons:** Requires good maintenance of devices information	**Relationship:** ITRST and metadata **Weighting:** Device type or level of support **Pros:** Use of metadata allows direct allocation of specific costs i.e. Lenovo vs HP laptop costs **Cons:** Requires good maintenance of devices information

Data Source

Information of end user devices such as Desktops, laptops and mobile devices

Common Source Systems

- IBM Tivoli
- SCCM
- Microsoft Active Directory
- ServiceNow CMDB
- BMC Atrium CMDB
- BMC Discovery
- HP UCMDB

IT Resource Towers to Mainframes

Good	Better/Best
Relationship: ITRST **Weighting:** Even Spread **Pros:** The numbers will flow from Allocate Mainframe, Mainframe Database and Mainframe Middleware costs **Cons:** No precision on the allocation, all mainframe components get the same cost	**Relationship:** ITRT to Mainframes **Weighting:** MIPS or GB Storage **Pros:** Accurate distribution of costs based on mainframe usage **Cons:** Requires good maintenance of Weighting information

Data Source

MIP/Job status from mainframe source system. Typically, this is pulled from a bespoke IBM product

IT Resource Towers to Storage/Storage Devices

Good	Better	Best
Relationship: ITRST **Weighting:** Even Spread **Pros:** The number will flow from one object to another. **Cons:** A even spread will mean all storage volumes within that sub tower will cost the same, regardless of size	**Relationship:** ITRST **Weighting:** Based on usable capacity (GB/TB) of Storage Devices/volumes. **Pros:** Defendable and clear allocation methodology with less human dependency **Cons:** If there are large cost differences between storage technologies within the same ITRST, these will not be reflected i.e. solid state vs disk	**Relationship:** ITRST and meta **Weighting:** Based on usable capacity (GB/TB) of Storage Devices/volumes. **Pros:** Use of metadata allows for differentiation in cost of different storage technologies within the same ITRST **Cons:** Can be complex to gather/maintain the data for this

Data Source

System of record for storage device and volume information

Common Source Systems

- EMC VMAX/VNX/Isilon
- Hitachi Data Systems Command Suite
- ServiceNow CMDB
- BMC Atrium CMDB
- BMC Discovery
- HP UCMDB
- HP 3PAR StoreServ
- NetApp OnCommand Insight
- Veritas Operation Manager

IT Resource Towers to Tickets

Good	Better	Best
Relationship: ITRT to Tickets **Weighting:** Even Spread **Pros:** The number will flow from one object to another. **Cons:** Does not reflect difference in costs of tickets based on severity or time to resolve	**Relationship:** ITRT to Tickets **Weighting:** Use the rate of the person that is handling the ticket **Pros:** Good information to allocate costs giving a good number to gauge tickets costs **Cons:** Needs a deeper level of information and a good ticket and HR system. Also, data will probably need to be anonymized	**Relationship:** ITRT to Tickets **Weighting:** Severity/Ticket Level or Time to Resolve **Pros:** Better information giving a more realistic cost distribution due to level of labor used **Cons:** This method still does not differentiate the cost of different labour resources. Care should also be taken not to use the elapsed time the ticket was open for, as low priority / severity tickets may attract too much cost

Data Source

Ticket management/helpdesk system such as:

Common Source Systems

- BMC Remedy Service
- CA Service Desk Manager
- ServiceNow
- HEAT/FrontRange IT Service Management

IT Resource Towers to Applications

Good	Better	Best
Relationship: ITRST **Weighting:** Even Spread **Pros:** The number will flow from one object to another. **Cons:** Will not distinguish costs actually incurred by the app	**Relationship:** ITRST **Weighting:** Allocate cost of Application IT Resource tower across all apps, but weight by the number of users per application. **Pros:** Good information to allocate costs giving a good number to gauge application costs **Cons:** Number of users is a viable proxy to differentiate application size and burden costs accordingly, however it may not take into consideration other drivers of per application cost such as volume of development/support labor or license and maintenance costs.	**Relationship:** ITRST and meta **Weighting:** • For App Dev, weighting by timetracking or project spend is generally ideal (assuming projects tie to Apps). • For LOB Software, direct cost is generally best. Sometimes this needs to be added as an additional subfield under SubTower to maintain integrity of the spend going up the model (assuming info is available in GL). • For App Support, timetracking or tickets are generally best. Business Criticality could be a secondary option if this is unavailable. • For Cloud Apps, direct cost is generally best. **Pros:** Very good information per application line **Cons:** High maintenance of information

Data Source

List of applications within your organisation

Common Source Systems

- BizzDesign
- Mega International
- Software AG ARIS
- Planview Troux
- SCCM
- ServiceNow CMDB
- BMC Atrium CMDB
- BMC Discovery
- HP UCMDB

IT Resource Towers to Business Services

Good	Better	Best
Relationship: ITRT to Business Services **Weighting:** Even Spread **Pros:** The number will flow from one object to another. **Cons:** No precision on the allocation, causing lack of accuracy (confidence) in the reports.	**Relationship:** ITRT to Business Services **Weighting:** % Spread **Pros:** Map the IT Resource to Business Services based on company knowledge of what business services use which resource towers. **Cons:** Each specific business service may require a different measure and baseline since their nature and method of measurement may vary drastically.	**Relationship:** No/minimal direct relationship **Weighting:** N/A **Pros:** The idea is to let the ITRT get to business service in a indirect way through the other objects in the model. **Cons:** Some costs might get stranded and will need to be addressed

Data Source

List of business services within you oragnisation

Common Source Systems

- BizzDesign
- Mega International
- Software AG ARIS
- Planview Troux
- SCCM
- ServiceNow CMDB
- BMC Atrium CMDB
- BMC Discovery
- HP UCMDB

Status Report

From	To	Good	Better	Best	Obs.
ITRT	Network Devices				
ITRT	Physical Server				
ITRT	Data Centers				
ITRT	End User Devices				
ITRT	Mainframes				
ITRT	Storage Devices				
ITRT	Tickets				
ITRT	Application				
ITRT	Business Services				

Applications to Business Services

Good	Better	Best
Relationship: Applications to Business Services **Weighting:** Even Spread **Pros:** The number will flow from one object to another. **Cons:** No precision on the allocation, causing lack of accuracy (confidence) in the reports.	**Relationship:** Applications to Business Services **Weighting:** Knowledge Based Allocation (% Split) **Pros:** SME expertise enables a better allocation than even spread **Cons:** Since this method is not based on specific data, it is subject to estimation by whoever is tasked with applying percentages.	**Relationship:** Applications to Business Services **Weighting:** Direct allocations, or number of service 'transactions' **Pros:** Data-driven allocations for each application enables high accuracy service costings **Cons:** High maintenance of information

Data Source

Applications that the company have and what business service it supports

Common Source Systems

- BizzDesign
- Mega International
- Software AG ARIS
- Planview Troux
- SCCM
- ServiceNow CMDB
- BMC Atrium CMDB
- BMC Discovery
- HP UCMDB

Status Report

From	To	Good	Better	Best	Obs.
Application	Business Services				

Apps / Business Services to Business Units

Good	Better	Best
Relationship: Apps / Bus Svcs to Business Units **Weighting:** Even Spread **Pros:** The number will flow from one object to another. **Cons:** No precision on the allocation, causing lack of accuracy (confidence) in the reports.	**Relationship:** Apps / Bus Svcs to Business Units **Weighting:** Organisational size / headcount **Pros:** Uses SME expertise **Cons:** Since this method is not based on specific data, it is subject to estimation by whoever is tasked with applying percentages.	**Relationship:** Apps / Bus Svcs to Business Units **Weighting:** Number of app users / log ins or licences **Pros:** High accuracy and enables demand-driven conversations **Cons:** High maintenance of information

Data Source

Common Source Systems

- Peoplesoft
- WorkDay
- Active Directory
- In-app usage / log-in tracking data (in application)
- Flexera (or other Software Asset Management system)

Status Report

From	To	Good	Better	Best	Obs.
Application / Business Service	Business Units				

Communications to End User Devices

Good	Better/Best
Relationship: Allocate all Communication costs for Type = End User Device to End User Devices **Weighting:** Even Spread **Pros:** The numbers will flow and allocate for the above data **Cons:** No precision on the allocation, causing lack of details in the data affecting reports.	**Relationship:** Allocate all Communication costs for Type = End User Device to End User Devices **Weighting:** Configured bandwidth **Pros:** Better management of costs and distribution **Cons:** N/A

Data Source

Common Source Systems

- Dimension Data Xigo
- Tangoe
- Vendor Billing

Communications to Servers

Good	Better/Best
Relationship: Allocate all Network Devices costs for Type = Data Center to Servers **Weighting:** Even Spread **Pros:** The numbers will flow and allocate for the above data **Cons:** No precision on the allocation, causing lack of details in the data affecting reports.	**Relationship:** Allocate all Network Devices costs for Type = Data Center to Servers **Weighting:** measured network I/O **Pros:** Better management of costs and distribution **Cons:** N/A

Data Source

Common Source Systems

- Dimension Data Xigo
- Tangoe
- Vendor Billing

Communications to Business Services

Good	Better/Best
Relationship: Allocate all Communication costs for Type = Business Services to specific Business Service (e.g. Retail Kiosk) **Weighting:** Even Spread **Pros:** The numbers will flow and allocate for the above data **Cons:** No precision on the allocation, causing lack of details in the data affecting reports.	**Relationship:** Allocate all Communication costs for Type = Business Services to specific Business Service (e.g. Retail Kiosk) **Weighting:** Configure bandwidth **Pros:** Better management of costs and distribution **Cons:** N/A

Data Source

Common Source Systems

- Dimension Data Xigo
- Tangoe
- Vendor Billing

Status Report

From	To	Good	Better	Best	Obs.
Communications	End User Devices				
Communications	Servers				
Communications	Business Services				

Data Centers to Physical Compute Assets, Storage Devices and Network Devices

Good	Better	Best
Relationship: Apportion all Data Center (DC) costs across Mainframes, Physical Servers, Storage Devices and Network Devices **Weighting:** Even Spread **Pros:** All DC costs will be allocates to all assets **Cons:** No precision on the allocation, causing lack of accuracy (confidence) in the reports.	**Relationship:** Apportion each Data Center costs across Mainframes, Physical Servers, Storage Devices and Network Devices within them **Weighting:** Even Spread **Pros:** Data Centre costs are distributed to assets within each individual Data Centre **Cons:** Does not take into account each individual asset	**Relationship:** Apportion Data Center costs across Mainframes, Physical Servers, Storage Devices and Network Devices within them **Weighting:** Average Power Consumption **Pros:** Data Centre costs are distributed to each asset within the Data Centre based on the power that they draw giving an fair and accurate allocation of the DC cost **Cons:** Data may be difficult to obtain, so consider using the number of U's (amount of rack space) as a next best alternative

Data Source

Information sources required so that costs can be allocated

Common Source Systems

- ServiceNow CMDB
- BMC Atrium CMDB
- APC Power Management / Rack Management Monitoring software
- Proprietary Data Centre Inventory

Status Report

From	To	Good	Better	Best	Obs.
Data Centers	Mainframes				
Data Centers	Physical Servers				
Data Centers	Storage Devices				
Data Centers	Network Devices				

End User Devices to Business Units

Good	Better/Best
Relationship: End User Devices (EUD) ID to Business Units (possibly via End User Service @ Services layer) **Weighting:** Even Spread **Pros:** Costs will flow into Business Units **Cons:** No precision on the allocation causing lack of accuracy (confidence) in the reports.	**Relationship:** EUD ID to EUS or Business Units **Weighting:** Users within each Business Unit **Pros:** End User costs are allocated directly to users within a Business Unit, assuming we can tie this at the EUD object. Alternatively using a department weighting we can assign more cost to departments within BUs **Cons:** Per user data may not be available

Data Source

Information of end user devices such as Desktops, laptops and mobile devices, and the user to whom each is assigned

Common Source Systems

- IBM Tivoli
- SCCM
- Microsoft Active Directory
- ServiceNow CMDB
- BMC Atrium CMDB
- BMC Discovery
- HP UCMDB

Status Report

From	To	Good	Better	Best	Obs.
End User Devices	Business Services				

Hypervisors to Servers

Good	Better	Better/Best
Relationship: Hypervisors to all Virtual Servers **Weighting:** Even Spread **Pros:** The costs will flow to the target object **Cons:** No precision on the allocation, causing lack of accuracy (confidence) in the reports.	**Relationship:** Hypervisors to virtual servers on host **Weighting:** Even Spread **Pros:** A reasonable mechanism for allocating hypervisor costs to the virtual servers hosted on that hypervisor **Cons:** Data can change frequently in the virtual environment and limited precision on the allocations causes a lack of accuracy (confidence) in the reports.	**Relationship:** Hypervisors to virtual servers on host **Weighting:** Virtual Machine Memory **Pros:** A fair and accurate mechanism for allocating Hypervisor costs to the virtual servers they host **Cons:** Data can change frequently in the virtual environment causing a lack of accuracy (confidence) in the reports.

Data Source

Information for virtualised platforms tend to come from the management systems

Common Source Systems

- VMware vCenter
- MS Hyper V

Status Report

From	To	Good	Better	Best	Obs.
End User Devices	Business Services				

Mainframes to Applications

Good	Better/Best
Relationship: Allocate Mainframe costs across all mainframe hosted applications **Weighting:** Even Spread **Pros:** The costs will flow to the target object **Cons:** No precision on the allocation, causing lack of accuracy (confidence) in the reports.	**Relationship:** Allocate Mainframe costs across all mainframe hosted applications **Weighting:** MIPS (or similar application time processing metric) **Pros:** A fair and accurate mechanism for allocating mainframe costs to the applications they host **Cons:** Requires the MIPS for each application

Data Source

Mainframe MIPS (or similar application time processing metrics) are required for Better or Best allocations

Common Source Systems

- Mainframe Management Console
- Outsourced / 3rd party provider billing information

Status Report

From	To	Good	Better	Best	Obs.
Mainframes	Applications				

Network Devices to Compute and Storage Assets

Good	Better	Best
Relationship: Network Devices to all Compute and Storage assets **Weighting:** Even Spread **Pros:** The costs will flow to the target objects **Cons:** No precision on the allocation, causing lack of accuracy (confidence) in the reports.	**Relationship:** Network Devices to Compute assets and Storage assets using separate allocation lines **Weighting:** Even Spread **Pros:** The costs will flow to the target objects **Cons:** Limited precision on the allocations, causing lack of accuracy (confidence) in the reports.	**Relationship:** Network Devices to Compute assets and Storage assets using separate allocation lines **Weighting:** To Compute assets based on Memory; to Storage assets based on size / amount of storage **Pros:** A fair and defensible mechanism for allocating network costs for the core assets they connect **Cons:** Requires two allocation lines and thus adds computational overhead

Data Source

Information on Network LAN, Network WAN and Network Voice costs

Common Source Systems

- SolarWinds
- CA Spectrum
- CiscoWorks
- NetScout Systems
- Riverbed
- Viavi Solutions

Status Report

From	To	Good	Better	Best	Obs.
Data Centers	Mainframes				
Data Centers	Physical Servers				
Data Centers	Storage Devices				

Projects to Applications and/or Business Units

Good	Better/Best
Relationship: Project ID to AppID or BU ID **Weighting:** Even Spread **Pros:** The costs will flow to the target object **Cons:** No precision on the allocation, causing lack of accuracy (confidence) in the reports.	**Relationship:** Project ID to AppID or BU ID **Weighting to Apps:** 1:1 allocation **Weighting to Business Units:** based on beneficiary BU Project costs absorbed by a single beneficiary BU allocated on a direct / 1:1 basis; project costs shared across BUs should be weighted by # of benefiting users in each BU **Pros:** Fairest and most accurate apportionment of costs **Cons:** N/A

Data Source

IT project data that will flow to BU or Apps

Common Source Systems

- Clarity
- Changepoint Daptiv PPM
- HPE PPM
- Microsoft Project Server
- Planview Enterprise

Status Report

From	To	Good	Better	Best	Obs.
Projects	Applications				
Projects	Business Units				

Servers to Applications

Good	Better/Best
Relationship: Allocate servers costs across all applications **Weighting:** Even Spread **Pros:** The costs will flow to the target object **Cons:** No precision on the allocation, causing lack of accuracy (confidence) in the reports.	**Relationship:** Allocate costs to applications that are hosted by each server **Weighting:** Direct / 1:1 **Pros:** A fair and accurate mechanism for allocating fully loaded server costs to the applications they host **Cons:** Requires reliable and up-to-date server to application mapping

Data Source

Common Source Systems

- Vmware vRealize Suite
- SCCM
- ServiceNow CMDB
- BMC Atrium CMDB
- BMC Discovery
- HP UCMDB

Status Report

From	To	Good	Better	Best	Obs.
Servers	Applications				

Storage to Applications

Good	Better/Best
Relationship: Storage Device to App IDs **Weighting:** Even Spread **Pros:** The costs will flow to the target object **Cons:** No precision on the allocation, causing lack of accuracy (confidence) in the reports.	**Relationship:** Storage ID to App ID **Weighting:** Direct / 1:1 **Pros:** A fair and accurate mechanism for allocating Storage costs directly to the applications they support **Cons:** Needs data that is rarely available. May be preferable to allocate Storage to Servers (where the linking data exists) and then allocate to Applications

Data Source

Common Source Systems

- EMC VMAX/VNX/Isilon
- Hitachi Data Systems Command Suite
- ServiceNow CMDB
- BMC Atrium CMDB
- BMC Discovery
- HP UCMDB
- HP 3PAR StoreServ
- NetApp OnCommand Insight
- Veritas Operation Manager

Storage to Servers

Good	Better/Best
Relationship: Storage Devices to Servers **Weighting:** Even Spread **Pros:** The costs will flow to the target object **Cons:** No precision on the allocation, causing lack of accuracy (confidence) in the reports.	**Relationship:** Storage ID to Server ID **Weighting:** Direct / 1:1 **Pros: :** A fair and accurate mechanism for allocating Storage costs directly to the Servers to which the device is connected **Cons:** Adds cost to Servers rather than direct to Applications making Storage cost per Application a drill report

Data Source

Common Source Systems

- EMC VMAX/VNX/Isilon
- Hitachi Data Systems Command Suite
- ServiceNow CMDB
- BMC Atrium CMDB
- BMC Discovery
- HP UCMDB
- HP 3PAR StoreServ
- NetApp OnCommand Insight
- Veritas Operation Manager

Status Report

From	To	Good	Better	Best	Obs.
Storage	Applications				
Storage	Physical Servers				

Storage Devices to Storage

Good	Better/Best
Relationship: Storage device ID to Storage (partition / logical unit) ID **Weighting:** Even Spread **Pros:** Costs will flow to the target object. **Cons:** At best, this only adds computational overhead so should be avoided until a Better/Best strategy can be deployed.	**Relationship:** Storage Device ID to Storage (partition / logical unit) ID **Weighting:** Size of the partition, logical unit or storage units defined **Pros:** A fair and accurate mechanism for allocating Storage Device costs to the storage units within it **Cons:** Requires large volumes of data to cover all device types

Data Source

Common Source Systems

- EMC VMAX/VNX/Isilon
- Hitachi Data Systems Command Suite
- ServiceNow CMDB
- BMC Atrium CMDB
- BMC Discovery
- HP UCMDB
- HP 3PAR StoreServ
- NetApp OnCommand Insight
- Veritas Operation Manager

Status Report

From	To	Good	Better	Best	Obs.
Storage Devices	Storage				

Questions?

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