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## General TCO Administration

1. How do I register to attend office hour sessions for the Total Cost of Ownership assessment?

**Answer:** Below are instructions to register for TCO Office Hour sessions.

- a. Point your Internet browser to this site: <http://wadismetings.webex.com>
  - b. In the blank search field, type TCO Office Hour, and hit return
  - c. Click on the “REGISTER” button for the event from the complete listing by date and time.
  - d. Save the WebEx email you receive; you will use it to join the meeting.
2. I've tried to “Join” the meeting on the WebEx site but it asks for passwords or credentials. How do I make it work?

**Answer:** Try clicking on the “Register” link and instead of the “JOIN” and follow instructions from there.

3. Will “TCO Office Hour” recordings be available?

**Answer:** Yes, we’ve posted links to play back each session. Go to the TCO Website and look under the section entitled “Office Hours.”

4. Which agencies are in the TCO study so that we can review certain specific issues with agencies that we know share the same challenges?

**Answer:** Thanks for the suggestion. We have added the list of agencies to the TCO website (<http://ofm.wa.gov/tco/default.asp>) and click on the hyperlinked text that says “Forty one executive departments”.

5. How can I get a copy of the CD with all the forms provided to attendees?

**Answer:** All of the forms required can be found on the TCO website (<http://ofm.wa.gov/tco/default.asp>) but the CD contains a modified spreadsheet for infrastructure TCO (not applications) that have hyperlinks to the multiple “Explain Texts” for infrastructure. Because the hyperlinks won’t work if the file names are truncated (as was happening in the downloading process and between versions of Windows during our tests) delivering the files by CD was the most practical distribution. The applications spreadsheet has only one “Explain Text” document and was not included on the CD. A long answer to say that we are happy to burn another one and sent it to you or you can come by and pick it up. Contact [larrydz@dis.wa.gov](mailto:larrydz@dis.wa.gov) and request a copy.

Addendum: We have received reports that placing the files in SharePoint will result in renaming the underlying Word documents (lots of “%20”s added in the file name) with the result of the hyperlinks not working. Unfortunately, there is no work around that we have regarding this. If someone does have a solution, please send us the answer and we will post it.

6. In the applications training breakout session Lisa Warden shared an assignment matrix. She said it would be available for our use. I was not able to find this on the website. Any chance of getting this soon?

**Answer:** Ms. Warden was referring to the Personnel Allocation Worksheet for Agencies that can be found on the TCO website.

7. How should charges on DIS invoice to my agency be mapped to each of the Gartner towers?

**Answer:** OFM is working with DIS to provide an example of how this can be done and will transmit that to agencies when it becomes available. Watch this

FAQ for updates. Generally agencies will enter what they paid for the year in column labeled “Outsourced/DIS-Provided” and the row labeled “IS Transfer and Spending” for each tower based on your service agreement with DIS.

## TCO Guidance for Depreciation

First, we are talking about depreciation for “major purchases” that in Washington are over \$5,000 (unit cost not total invoice). That means for a PC that cost \$2,000 you report the full \$2,000 in the year spent – even if you spent \$400,000 for 200 PC’s at \$2,000 each.

Second, considerable agencies have said they don’t depreciate technology even for items over \$5,000. That is unlikely and it is important to check with your accounting people to see how they are reporting these costs. It is likely that from a budget perspective it did come out of this year’s budget but was depreciated for statewide accounting purposes using guidance on useful life for information technology found in Chapter 30.50 of Washington State Administrative and Accounting Manual (SAAM) published by OFM.

If your accounting shop cannot help you, here is what you will need to do to finish the Gartner workbooks; this OFM guidance consists of four examples.

**Example 1:** Your agency took delivery of a \$6,000 server in the last month of the study year (June of 2011). You determined that the useful life (using the SAAM for guidance) was 48 months. In the Gartner workbook, you would record 1/48th of this cost as hardware.

**Example 2:** Your agency took delivery of a \$6,000 server in 2006. You determined that the useful life (using the SAAM for guidance) was 48 months. In the Gartner workbook, you would record nothing for the cost as hardware as it has been fully depreciated.

**Example 3:** Your agency took delivery of a \$6,000 server on July 1, 2010 the first month of the study year. You determined that the useful life (using the SAAM for guidance) was 48 months. In the Gartner workbook, you would record 12/48’s of the cost as hardware.

**Example 4:** Your agency completed a PC refresh and took delivery of 1,000 new machines in the study year, each with a useful life of 3 years and a price \$2,000. In this case, unit price is below our corporate depreciation threshold. Gartner expects you to report all of the expense for FY11.

**Example 5:** Your agency took delivery of software valued at \$20,000 and put the same into productive use to monitor networks during TCO study year. In the Gartner workbook, record one year of the depreciated cost for this acquisition as well any

licensing fees you may have incurred. If the State negotiated a multi-year enterprise agreement, reduce the total cost of that agreement to its annualized equivalent for your agency and report a one-year sum in your Gartner workbook.

## Data Reporting and Agency Profile

1. Within the Infrastructure workbook, the WAV Carrier, WAV Private and VPT tabs all require a number of data sets from DIS. Has OFM already reached out to DIS for this data?

**Answer:** OFM has reached out to DIS for this data, and we hope to have it available to agencies by October 6.

2. The Department of Fish and Wildlife has nearly 200 sites. They include home offices which are recognized by the department as an office (as opposed to telecommuting which is not considered an office location). The agency maintains several hatcheries and wildlife areas ranging from 1 to 10 employees and equipment, phones and internet access. The agency's regional offices have from 30 to 100 staff. In the case of DFW's enforcement division; the patrol vehicles are considered mobile offices with air card and wireless access. This agency also experiences a large influx of seasonal staff who will work various hunting and fishing seasons. Remote office support consumes a great deal of time for some staff. The department also pays local vendors for internet access and telephone service to many of its remote locations. For the purpose of this study, IAS and Help Desk being prime examples, which locations count? And should seasonal help be included?

**Answer:** Gartner defines a site (location) as a fixed place to go to get work done, and therefore generally excludes telecommuters, mobile offices and the like from this report. Other considerations: Does the agency pay rent on this home office? Would your technicians go to the home office to deliver support? If so, count the home office as a site. If you want, you can add comments that describe for us unrecognized home offices, mobile site (e.g. vehicles), temporary or seasonal sites that fall outside of this Model. The key here is to balance workload and cost. If seasonal employees perform the work and that work is measurable it's okay to include seasonal employees.

3. Do we need to calculate the exact Salary and Benefits for each individual? Or can we use a standard Salary and Benefits for each specific job class? Can we report all our ITS5's at Step L regardless of their exact band placement during FY11 or should we wait for OFM to provide a standard figure for each IT job class?

**Answer:** The strong preference would be to report the exact Salary and Benefit paid out in FY11. If you choose to use standard Salary and Benefits for each job class, use an average step level that aligns with the maturity of the staff time being reported (e.g., use a mid step level if you have a mix of staff at the lowest level and the highest level).

4. Can you confirm if I should include the time that our fiscal person spends on IT asset management in the costs, or not?

**Answer:** Yes.

5. Please explain what kinds of cost should be reported in the two Revenue and Expense rows, and the four IT Spend rows displayed below.

<b>Financials</b>			
	<b>Previous Year</b>	<b>% Change to Previous Year</b>	<b>% Change Expected This Year</b>
<b>Revenue and Expense (most recently reported)</b>			
Revenue			
Expense			
<b>IT Spending - Infrastructure and Applications</b>			
	<b>Current Year</b>	<b>% Change to Last Year</b>	<b>% Change Expected Next Year</b>
Capital Projects			
Ongoing Operations			
Unallocated (Capital & Operations)			
Depreciation & Amortization			

**For Revenue and Expense:**

Previous year is state FY10.

% Change to Previous Year is the percentage change from state FY09 to state FY10

% Change Expected this Year is the percent change during state FY11

**For IT Spending:**

Current year is state FY11

% Change from Last Year is the percentage change from state FY10 to state FY11

% Change Expected Next Year is the percentage change from state FY11 to state FY12

**Answer:** Revenue and Expenses are reported for the agency as a whole. For government and nonprofit organizations, “expense” is represented by an operating budget including (if any) depreciation expense for the year but excluding capital dollars spent.

- Folks did hear Gartner correctly at the September training. The firm does not need “revenue” figures from individual departments for this particular engagement. You may leave that row, blank.

- The Washington State Patrol, Departments of Licensing and Transportation should consider both the Omnibus Operating and Transportation Budget Acts as they complete their profile.
- All agencies should take care to leave out benefits (object N) or similar payments to clients (e.g., welfare) for this report.

The need for these “high level” statistics is to select appropriate peers from Gartner’s considerable benchmarking cost database.

### **IT Spending (Applications and Infrastructure)**

You are being asked to make a reasoned estimate after studying how Gartner defined “budget.” OFM knows and understands that there is no State financial report (AFRS, Portfolio/Clarity) agencies can use to complete this report.

Go to pages 5 and 6 of the Explain Text for the module called “Enterprise Profile” and review the paragraphs which describe “spending” from an IT domain or activity perspective, as well as in the alternative, from a resource or accounting perspective.

For benchmarking purposes,

- Leave out costs for technology or services that are resold
- Leave out operational technology that is built or purchased for non-data processing purposes but which has computerized components such as point of sale devices.
- Avoid “internal cross charges” and allocations for such things as early retirement, incentive bonuses and human resources, generally.
- Leave out business data subscriptions and services, generally even those managed by your IT unit.

Many have written or called the TCO Support Team seeking help to distinguish between what Gartner means by “**Ongoing Operations**” and “**Capital Projects**” with respect to information technology. For all clients, Gartner asks you to mirror how it is treated on the agency’s books.

As a matter of policy, in general, agencies depreciate/amortize purchases over \$5,000 (unit cost rather than invoice) and accountants are instructed to use “capital” objects for general ledger entries when they recognize certain intangible assets (e.g., software) valued over \$1 million when your agency puts large scale applications into production.

Gartner wants **Depreciation and Amortization** pulled out of your estimated IT spend for the year (Line 44) if at all possible. OFM has shared with Gartner that Washington State agencies largely operate on a cash basis. However, your department may have been authorized to finance a technology improvement

using treasury certificates of participation. An example would be to replace a mainframe computer. Such COP-backed improvements can be reported as “capital projects” on Line 41 of this tab.

6. Do we include the cost of professional organization memberships as a benefit?

**Answer:** Yes, if paid to provide your agency its IS workforce, it is a burdened cost of employment and would count as a benefit.

7. During the study year, Department of Revenue (DOR) purchased some new network and security equipment to accommodate moving the Master Licensing System from Department of Licensing (DOL) to our operation to meet legislative mandates and requirements that took effect on July 1, 2011. These costs were one-time in nature and as such, cost anomaly. Should we report it?

**Answer:** Yes, include what you spent on non-capital equipment and depreciation expense for capital equipment that was purchased to assume DOL program and note the one-time nature of this DOR purchase for Gartner/OFM benefit when you turn in the workbooks.

8. During the 9/22 Office Hour (approx min 9-14) there was discussion about the definition of end user for help desks. Does this definition also apply to the end users we are to include under the Agency Profile tab?

**Answer:** Yes, it does apply, similarly. Gartner wants to understand what you have by way of full time, supported IT users. Don't count general population or partner agencies (see below).

---What about a situation where we get calls from other agencies about sharing data on SharePoint sites in common and we give those staff advice. Do we count them as “department” end users?

**Answer:** More likely we'll pick that up as an IT help desk contact but generally, no, these partner agency staff should not be counted as your department end users in the Infrastructure Workbook. For study of your Applications Development and Support the TCO framework is constructed differently. ON this side, partner agencies may be captured as end users should you isolate the SharePoint application for study within your inventory.

---Would we consider a business taxpayer filing their taxes via our web application an end user for the agency profile?

**Answer:** No, business taxpayers are not end users in the Infrastructure workbook. Gartner does not base its assessment on this count of end users but asks for that count to get a sense of your agency, generally. Don't include a public-facing contact center in this cell. For Gartner, IT Help Desk is measured as a cost per contact rather than end users. Contacts might be an alert that the

“network is down” or my “application is not working” and we’re thinking about a technology desk that is internally focused to serve the agency; not those Web-based, external sites the general public may access, online.

9. The guidance for this Model suggests card security systems are out of scope. So the time we spend managing access and related assets should be left out of our TCO workbooks for OFM?

**Answer:** Yes. The Model captures the attached server and its support but not the card reader and its related maintenance. And if you have stored video, the Model counts terabytes of storage but not the video camera and cost to fix it if it goes down.

10. What about groups that manage our Exchange environment. Where do we account for their time and those assets?

**Answer:** We capture the costs and workload associated with Exchange under Wintel tab (presumes you operate with MS Windows). Outlook software license, however, shows up in Client Peripherals tab of your Infrastructure Workbook.

11. Where do we account for the costs we pay to DOP for HRMS and OFM for AFRS? This is significant at DSHS (>\$10 Million).

**Answer:** Because DOP and OFM actually support and pay for the costs associated with HRMS and AFRS applications, DOP and OFM would report costs associated with support of these applications in the appropriate towers. The amounts paid by DSHS (or any other agency using these services), would not be reported in a specific tower, but would be reported in the Agency Profile worksheet as an IT Expense.

12. We have several large imaging units at DSHS; do we include the assets (scanners) and staff that perform document prep and scanning?

**Answer:** The scanning devices and costs for staff that perform document prep and scanning is out of scope. However, if you operate servers that provide support for the scanners, the costs associated with the servers should be reported.

13. I am attempting to complete the “agency financials” portion of the Agency Profile information, and I have questions on how to define “Capital Projects” vs. Ongoing Operations”. Is there a dollar limit that defines capital versus operating? Or, is it whatever the agency defines as a capital investment? Please reference the examples below and provide guidance on how these should be reported:

*Example 1:* While doing the normal PC refresh we actually add 10 new PCs to increase the total supported. Would the 10 PCs be considered capital investment?

*Example 2:* We replace leased fiber with agency owned fiber. Since the agency is replacing something that exists, would the cost of the fiber build be capital or operating?

*Example 3:* An existing application is reviewed and enhancements are desired by the user. The enhancements increase functionality, capability and usability of the application. Would this be considered capital or operating?

*Example 4:* A customer requests a new application be built for a specific need. The programmer takes two months start to finish on development and implementation of the custom application. Is this capital or operating?

**Answer:** It should be noted that the concept of a “Capital Project” should not be confused with the term “Capital Improvement”. They can be one in the same but not necessarily. For example, it could be argued that the addition of 10 new PC’s, or improvements to a custom application that took just two months to complete does increase the intrinsic value of your agency (conventional meaning of “Capital Improvement”). However, the addition of 10 PC’s would generally NOT be considered to be a Capital Project.

When in doubt, you should consult your Chief Financial Officer to determine whether an IT project is considered to be a “Capital Project” for your agency, as Capital Project expenses are generally reported differently than operating expenses.

Guidance on whether costs should be *capitalized* or expensed can be found in the “*TCO Guidance for Depreciation*” section of this FAQ.

14. When will OFM be providing information on leased facilities cost?

**Answer:** Costs of leased facilities can be found on Page 10 of the report found at: <http://www.ofm.wa.gov/budget/documents/FacilitiesInventorySystemsSummary.pdf> This link will also be added to the TCO home page for easier reference.

15. The Lottery has a major contract with a global company called GTECH. They supply the following:

- The Lottery ticket dispensing terminals and vending machines at retail locations state-wide.
- All the communications equipment between the retailer machines and the central host.
- The central gaming system that processes all the gaming transactions – wagers, cancels, validations, etc.
- Support staff to service all the equipment.
- Software developers.
- Hot DR site.
- QA lab.

They also supply the some non-IT items:

- Sales staff.
- Marketing staff.
- Consumables, like ticket stock and play slips.

This is a performance based contract in which GTECH gets paid a percentage of Lottery sales. Charges are not broken down by hardware, software, personnel, facilities, etc.

In association with this contract the Lottery supplies:

- Contract manager.
- Vendor liaisons – QA, Business Analysis, technical writing, for modifications and enhancements customized for Washington's Lottery.

Is this to contract be reported somewhere, and if so, where in the Model? Knowing I can account for the vendor liaisons who are part of the Lottery's IT department. Is the contract management time considered 'out of scope' since it isn't really an IT function?

**Answer:** Gartner considers the Lottery gaming application to be a very specialized kind of business application that, due to its unique nature, would be difficult, if not impossible, to find a comparable peer for and hence would be out of scope for this TCO exercise.

References to this application for should be excluded from both Infrastructure and Applications workbooks. Any work that may have been performed by Lottery IT staff in support of this application should be noted as being out of scope on the Personnel Allocation Worksheet (PAW).

16. Where do we capture costs as they relate to Exchange Administrators who manage Exchange and provide Exchange support? What about SharePoint and SharePoint Administrators that monitor and manage the product as well as those

that manage IIS and do WEB administration. Are they all Enterprise Computing?

**Answer:** Yes. Provided there is no client component support involved, costs for Exchange and SharePoint administration, as well as costs for those that manage IIS and do Web administration would be captured in Enterprise Computing. Specifically, if these are all running on a Wintel environment, then all would be captured on the Wintel worksheet. Gartner considers applications such as Exchange and SharePoint to be productivity, applications, and as such, support costs for these should not be reported in the Applications workbook.

17. For the infrastructure worksheets that include service responsibility percentage (WAN, IAS, etc.) - will we get info from DIS on how to populate that section or is each agency populating that on their own?

**Answer:** Here, Gartner is asking each agency to complete their own service responsibility field(s) as you may be supporting some if not all of your respective environment in ways unknown to CTS (formerly DIS).

*By way of an update: Last week, OFM got its first look at data needed to tell agencies how to apportion what they paid DIS back across the framework (e.g., connectivity, personnel, hardware, etc.) at the services level. Gartner reviewed that information to check its conformance to their Model and practice standards. CTS got a slight head start on your own agency but similarly, CTS has had to assemble its expenditure records to populate the same Infrastructure workbook as your team. Please continue to use the DIS undistributed fields on your worksheets as a placeholder to capture your DIS invoices until OFM can get detailed instructions to you. Thank you for your patience on this matter!*

18. Where do we put the MIPS data for the mainframe worksheet?

**Updated! Answer:**

DIS derived a MIPS statistic looking across the entire S/390 environment for its clients. While the S390 metered customer data set used "average" the figure is representative of the computing load and value should not be multiplied by 12 for



S390 Metered  
Customers\_TCO D:

your report and profile.

To illustrate how to use this data set (Excel file) the Office of Administrative Hearings would place **0.1287** in cell E38 of your Mainframe tab (see below) in the Infrastructure workbook.

State of WA - Gartner IT Overview Benchmark Infrastructure\_OFM K920 Final - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Add-Ins Acrobat

Paste Clipboard Font Alignment Number Styles Cells Editing

A35

	A	B	C	D	E	F	G	H	I
34		<b>Total Staffing</b>	0.00	0.00				0.00	
35									
36		<b>Workload</b>		Department-Owned	DIS-Owned	State Provider-Owned	External Provider-Owned		
37		Total Number of Physical Servers (Boxes)	0.00	0.00	0.00	0.00	0.00		
38		Total Weighted Standard MIPS	0	0	0	0	0		
39		Total Weighted Specialty MIPS (z/PP and z/APP)	0	0	0	0	0		
40		Total Weighted Specialty MIPS (IFL)	0	0	0	0	0		
41		Total Weighted Installed MIPS	0	0	0	0	0		
42		MIPS Utilization %		0.00%	0.00%	0.00%	0.00%		
43		Total LPARS on Mainframe	0	0	0	0	0		
44									
45		Total Sites with Servers located on them	0	0	0	0	0		
46									
47		<b>Service Level</b>							
48		<b>Availability - % of time the system is available for normal business operations</b>							
49		Target	0.0000%						
50		Actual	0.0000%						
51		<b>Response Time (seconds)</b>							
52		Target	0						
53		Actual	0						
54									
55		<b>Hours of Operation</b>	0						

Agency Profile Unisys Unisys Inventory **Mainframe** Mainframe Inventory Unix Unix Inventory Wintel Wintel Inventory

Ready Average: 0 Count: 52 Sum: 0 85%

19. Writing to confirm that Revenue Department should exclude what we paid the Department of Information Services for mainframe print, right?

**Answer:** Yes, this is correct. Please exclude mainframe print costs.

20. Labor and Industries has equipment used for batch printing primarily by our development staff. There are two MFDs (multifunction device) for which we have a lease payment. There are also 2 old IBM laser printers and 5 old Tally and Printronix line (impact) printers that have minimal use but for which we still carry a maintenance contract for support. Primary uses for these printers are things like monthly and quarterly invoices, quarterly and annual reports, and licenses for contractors, plumbers, electricians, etc. We could not find a good fit in any of the towers for them. We need help to determine where they belong, if at all.

**Answer:** Gartner has made a call largely excluding “data center print” from the scope of this assessment. It sounds like this is what L&I has going on here with respect to its inventory. The MFDs with lease payments go into your Client and Peripherals tower. The IBM laser printers, Tally and Printronix printers are more in line with that out-of-scope purpose (data center print) but if L&I were to include its contracted support charges, put that expense under “hardware” where logically connected to the developers. Primary use is an appropriate question to ask as you proceed. Batch printing per se? It depends. Shared networked printers are typically reported within the Client and Peripheral tower and it’s okay to distribute these maintenance costs across towers so your profile matches your circumstance.

## GIS-Enabled Applications

1. We have several staff whose job it is to support and maintain a large volume of spatially enabled data used by both individual GIS users and GIS enabled applications at the Washington State Department of Transportation. We are looking for guidance about reporting this effort in the TCO study.

The work is performed by IT classified workers, business unit staff, cartographers and transportation technicians. Generally speaking, the products they produce are made available to the entire enterprise either through in-house built applications, extensions to vendor applications like ArcMap and ArcGIS Explorer or directly via ArcMap or ArcGIS Explorer. Below is an outline of tasks IT classified employees perform. Does any of this work, count and where is that best reported in Gartner’s framework?

- a) Creating and editing spatially aware data
- b) Loading and managing data in the SDE environment (ESRI’s Spatial Database Engine environment which is SQL on the backend, ESRI on the front end). This includes replication of data into reporting databases, QA databases, development databases or replicas for performance reasons.
- c) Creating cartographic products in ArcMap (over 2500 layer products exist) to be used by WSDOT staff via ArcMap (and our extension called the GIS

- Workbench) or exposed via GIS map services for use by GIS enabled applications. This work can entail:
- i) building SQL definition queries
  - ii) choosing and formatting attribute fields for display
  - iii) creating symbology for various scales
- d) Exposing some of the cartographic products above via ESRI formatted web based map services,
- i) sometimes many layers with unique definition queries are in each individual map service
  - ii) an iterative cartographic process is often needed to make the services perform well
  - iii) sometimes we build multi level map caches; this can take lot of time, but is needed to make the GIS applications perform as required.
- e) Managing the portfolio of over 30+ map services (debugging, testing, performing QA, monitoring, repairing, moving around, etc).
- f) Time spent upgrading to newer versions of ArcGIS Server

**Answer:** Don't count the time of users or stewards who may create data but do include the technical work group where you produce layers. Working on the performance for ESRI environment? Be careful here as some of what you described may belong in the Infrastructure workbook (server software upgrade; repository storage and DBA work for performance reasons) Gartner's framework includes a personnel category for technologists who "design, evaluate, create and maintain the logical data definitions and structures" used by applications within your portfolio. Can you size the GIS-enabled Application in your inventory? Hours can count as "support" or "development" depending on the duration and scope of map service assignments you tackled during the study year.

## Workbook Towers:

### Enterprise Computing

1. We have a number of Wintel servers that are located, owned and managed by DIS that support agency business applications. Should these servers be included in our Wintel inventory sheet? And do we need to break out the number of physical servers, OS instances, speed, memory configuration, etc. for each server?

**Answer:** Please report the servers you own and manage on the "Inventory" sheet. Do not report the servers owned and managed by DIS on the "Inventory" sheet. Do report your costs based on the number of servers provided by DIS,

other state provider, or other provider external to the state on the Wintel tab in the appropriate column (see row 13, columns D,E, F, and G).

2. On the Wintel inventory tab, there is a column for the number of processors per server. Our assumption is that this is the number of sockets and not the number of cores. Is this correct? This column also exists on the UNIX and Linux inventory tabs.

**Answer:** It is the number of cores we are looking for in all three instances above.

3. We are running Linux-based VMware in clustered virtual environment in support of numerous instances of Windows. Where should we report this expense?

**Answer:** Report it all as either Linux or as Wintel (do not spread across both).

4. Our field office locations have a voice mail application that resides on a Wintel server. In this case, we understand that we should record the server under the Wintel inventory sheet and the voice mail application costs show up on the voice premise worksheet. Is that correct?

**Answer:** The server Hardware cost would be counted in Voice Premise Technology, as would the labor cost for managing and maintaining the voice mail application. If the servers are centrally managed by the agency's dedicated server team, the servers hardware costs should also be captured in the Wintel spreadsheet along with the costs associated with the support of those servers. (Note: this is a known overlap of server hardware cost in the Gartner TCO models).

5. What about storage applications that reside on the same Wintel server? We use those to manage backups. Would this follow the same reporting as the example stated above, where the Wintel server (used for storage) is reported on the Wintel spreadsheet, and then the storage application is reported under the Storage spreadsheet?

**Answer:** "Yes" and "Yes". The server should be reported under the Wintel spreadsheet and the storage application under the Storage spreadsheet.

6. For an environment that is virtualized, in whole or in part, what's the expectation for reporting an OS instances associated with a server? Looked at "Explain Text" but not finding enough described. Can Gartner provide advice so Washington agencies report this, similarly?

**Answer:** Include both the host and virtual machine OS. Think of these as equivalent machines as you tally instances within your computing environment.

<b>Wintel Service Level</b>	
<b>Availability - % of time the system is available for normal business operations</b>	
Target	%
Actual	%
<b>Response Time (seconds)</b>	
Target	0
Actual	0
<b>Hours of Operation</b>	0

7. With respect to the **Response Time (Seconds)**: Is this our staff time response when a server is having issues, or the user's experience relative to how long the screen refreshes once they initiate an action? If the latter, where is this to be measured?

**Answer:** We are referring to system response time. You can only report a target if your group set the expectation with customer business units. Do you have this kind of service level agreement? If you do not, then you will leave this part of the workbook blank but let us know you don't track it by adding a comment.

With respect to the **Hours of Operation**: Is this when we have staff working or do we include the expectation that systems are functioning 24 X 7? Our agency has staff working from 6 am – 6 pm. However, we have public facing web sites through which public information is provided, as well as sites where people and organizations pay their taxes. These sites must be available all the time. When systems go down, we have people who respond, but they are not on the payroll after hours and/or on weekends. How should we answer the hours of operation?

**Answer:** Report only those hours when it's customary that staff work. In this example, the correct answer is 12 hours x 5 days or 60 hours per week. Don't include on-call hours.

8. Are large mainframe print jobs (both the assets and staff involved) in scope or out?

**Answer:** Assuming these are printed by DIS, and there is no programming or other technical work required by your agency staff, any costs associated with picking up the print jobs or preparing them for distribution would be out-of-scope for this exercise.

9. The Mainframe Inventory Infrastructure workbook asks for "Interactive CPU Mins p.a." and "Batch CPU Mins p.a." What do these mean and how are they different?

**Answer:** In each case, “p.a.” stands for “per annum” and means the total number of minutes per year. Interactive minutes would be for MVS/TSO, VM/CMS. Batch minutes would be CPU minutes for batch processing

10. The *Wintel* Infrastructure workbook, under “Service Level”, asks for Hours of Operation. Is this hours of operation per day? per month? per year?

**Answer:** This is asking for Hours of Operation per week. For example, if you actually pay staff for 7x24 support, this would be 168 hours (7 times 24). If you provide support 12 hours a day, it would be 7 times 12, or 84 hours. You should include only hours actually staffed, and not include after hours on-call or call-back support.

11. Is each line on the Wintel Inventory spreadsheet supposed to represent 1 physical server or is each line supposed to represent a class of servers based on other information in the line?

Sample 1 for 1 server per row:

Wintel Inventory					
	Number of Servers	Number of OS Instances	Number of Processors per Server	MHz per Processor	Architecture Structure (16, 32, 64, 128 bit)
Total	3	3			
Average			8	2	64
	1	1	8	3	64
	1	1	8	2	64
	1	1	8	2	64

Same Information but merging the two servers represented by the last two rows into a single server “class”.

Wintel Inventory					
	Number of Servers	Number of OS Instances	Number of Processors per Server	MHz per Processor	Architecture Structure (16, 32, 64, 128 bit)
Total	3	3			
Average			8	3	64
	1	1	8	3	64
	2	2	8	2	64
					64

In this case the averages for MHz and Architecture seem to get messed up. The MHz per Processor rounds up or down to the nearest whole number. Was this the intent?

**Answer:** Thank you for bringing this to our attention. You are correct that the spreadsheet does not properly provide a weighted MHz per Processor average when similarly configured servers are grouped together. Gartner will correct this as your data is received.

12. Where should the costs for the following software (running on a Wintel server) be placed: (a) BizTalk Server; (b) Team Foundation Server

**Answer:** Gartner would typically report the cost of “BizTalk” Server in the Applications workbook as we think of that product as a developer software language tool. As for “Team Foundation” Server (Microsoft product) if your application developers are the users and it just happens to reside on a Wintel server, don’t let that confuse you. Go ahead and report the cost of this software in the applications tower. Note: There was a discussion of IBM’s MQ as middleware in addition to its utility to developers. There’s no hard and fast rule. It depends on your organization’s predominate use of such software where those costs get reported. See Office Hour recording for Tuesday, October 25 starting at minute 2:00 to hear from Gartner, verbatim.

## Client and Peripheral Support

1. We have approximately 4,000 PCs and about 2,900 FTEs and contractors. We will include the total number of devices in the Client and Peripherals Support sheet. However, we don’t see that the total COST for all 4,000 will be captured in the Gartner assessment. Is this okay? In the hardware cost line of each tower, we will only be reporting the cost of 1 PC for each FTE in addition to any PC that is performing a support function within the tower. But these totals will not equal to total COST for all agency PC’s for FY11. Help us understand, why?

**Answer:** In Client Peripherals, we do ask about your equipment inventories and associated costs—we could capture approximately 4,000 PCs in the workload section and the expense in 2011 as Hardware cost. So we’re not following the concern you raise; that this Model does not capture 4,000 PCs. If this equipment was fully depreciated or expensed prior to July 1, 2010, then you would have zero hardware cost to report in this Model but you did experience ongoing labor cost to maintain those assets. Let’s talk about this once you complete the exercise.

2. Looking to understand demark and definition of a work site. Thinking about major and minor sites for Ecology; is it based on headcounts e.g., 15 or more staff in a single location?

**Answer:** If you are going to a location to support these peripherals, or paying rent on that space, include it as a work site.

3. If we provide agency PCS or Internet service to a home office, do we count that?

**Answer:** Typically we don't capture a VPN from a home office; most people expense it and even corporations have trouble picking that up to count in their network reports to us so that is why we don't include it for you, either, in this assessment.

4. Where would we report time IT employees spend reconfiguring their workstation environments?

**Answer:** This should be reported in the Infrastructure "*Client and Peripheral Support*" worksheet.

5. Is it true that with respect to printers, that we exclude the cost of all consumable except toners?

**Answer:** Yes, include toners, but no other consumables such as paper maintenance kits, drums, etc. are excluded.

6. Within the Client & Peripherals tower we are asked to report on the time to repair Severity 1 failures or problems. Can you indicate what elements would be included in the "desktop" environment? The reason we ask is that when multiple users are impacted we tend to think of problems with the LAN, WAN, Wintel, etc. and not the desktop environment.

**Answer:** The idea that an incident affecting multiple users probably would not be a desktop failure is accurate. But for the purposes of services levels, this is where Gartner asks this question in its model.

## IT Help Desk

1. Do we include FTEs on Help Desk providing application support (e.g. how to work in the application, passwords, etc.) if the end users are external entities such as medical providers, claimants (clients) or ordinary citizens? We did hear and understand that these "customers" do not get counted in the total count of end-users in our technical profile, but where do we report this personnel expense?

**Answer:** If Help Desk staff is actually providing application support to an end-user, then yes, you should count their time and those staff in Application Support. If your help desk staff are performing any application maintenance (e.g., coding or bug fixes), then they would be counted as Applications Support. This is a known and understood overlap in Gartner's model and approach to TCO.

2. If we don't keep service level metrics, e.g., actual versus target, do we leave the cells blank.

**Answer:** Write a note that says we don't track this and yes, leave it blank. We'd like the insight if you can find this information but we don't expect you to report what you don't measure.

3. We have staff working outside our IT division who provide support for program applications. They receive trouble calls, provide training and give directions on using the application and forward questions they cannot resolve to the IT division staff. Would we capture a portion of their time/salary in the Infrastructure Benchmark tab for Help Desk?

**Answer:** Are their calls logged into your IT Help Desk that you will be reporting in this study? Generally, customer/business unit contact centers are out-of-scope even if those helping are in an IT job class or paid out of your IT budget. This tab is about contacts made by your IT Help Desk personnel.

## Data Networks

1. If we spend \$352K in June of 2011 for new switches, do we include that entire amount in the hardware section of the LAN costs, which are put into cell 38D of the spreadsheet? Assumption is that we put the entire amount spent in June 2011; is that right?

**Answer:** For the purposes of peer comparison with other entities, the Gartner model generally assumes that large expenses such as these are capitalized, and that expenses are depreciated over a given time, usually four years. If the purchase was made and installed in June 2011, only one forty-eighth of the purchase price would be recorded in the FY11 study period; also see previous FAQ section entitled, TCO Guidance for Depreciation.

2. Ethernet is not listed as a technology in "Technologies in Use as % Total Bandwidth" within Gartner's Explain Text for its WAN tower. How would you like for us to show Ethernet?

**Answer:** Please show Ethernet as MLPS in the WAN tower.

3. How do you show multiple contracts under Wide Area Network (WAN)? Most of our circuits have contracts from multiple vendors.

**Answer:** I think we're going to run into this quite a bit for Washington State agencies. If it's just a transmission contract, that's not what we're looking for in this tab. Gartner is seeking to understand if you have managed telecom service contracts where the vendor is not only providing circuits (transmission) but also

managing the network for your agency. Should this apply and you have multiple contracts to report, please report a weighted average cost with respect to network operation and technical support vendors as a whole are providing to your agency.

4. I thought that I heard at our Infrastructure training session not to include video conferencing hardware. Is this true and why?

**Answer:** Yes, true. Why is it out-of-scope? It's proven difficult to maintain comparable data so Gartner's not in a position to benchmark your costs for video conferencing hardware during this assessment.

5. In our training session, I understood that IDF (switch closets outside the data center) were not included. I would like confirmation that is correct.

**Answer:** Correct, we only want to know about your raised floor environments when we ask about data centers. As for switch closets, we'll pick that up in your occupancy costs for network or voice services so long as you report office space your teams occupy.

6. With regard to premise wiring (e.g. CAT-5 cabling etc.), should installation costs be included?

**Answer:** No. Costs for cabling and installation should be excluded. However costs for small moves and changes by staff should be captured.

7. The Department of General Administration has a separate network that runs our Card Key, Metasys and Duress systems. This network consists of servers, switches and personal computers. The software resides on the servers in our network. The card key network is also backed up on GA network storage devices. We would like to know if we should capture this network in the TCO study.

**Answer:** We'd have to know a little more from GA but it could be reported as a Local Area Network so long as you exclude the card readers and time you may have spent fixing those out of scope, end devices.

8. Within the Internet Access Service (IAS) tab, Gartner asks us for MAC counts. Are they looking for us to report the number of hardware upgrades to the firewall server? The number of software upgrades to the firewall server? Or the number of firewall rule changes during the year? Would a correct response include the number of changes to the internet content filter?

**Answer:** The MAC count should include the hardware and software changes, as well as the changes to the internet content filter. It should not include rules changes.

9. The TCO spreadsheets have a tab for reporting Internet Access Service costs (IAS). Where are the costs for other security services we incur properly reported? For example:

- access control
- provisioning
- secure file transfer
- investigations
- security policy development

**Answer:** Costs for security should be allocated to the specific tower, or towers, for which the security applies. For example, if a particular software product or service primarily enhances the security of Wintel servers, the cost should be captured in the Wintel worksheet. If the benefits of the software or service extend to both LAN *and* Internet Access for example, the cost should be split across these two towers. For types of security that has broad applicability, such as security policy development, the cost for this can be spread equitably across all the towers that may from benefit from this kind of activity.

10. DOT does not completely outsource our maintenance and support when it comes to anything that could be considered a WAN/LAN/MAN/IAS contract. We service our own equipment 100% of the time. The only time we ask for vendor assistance is if the issues are within their network. Do we need to list our contracts that we have with our service providers if the above is the case?

**Answer:** No. The service responsibility matrix is meant to capture information relating to managed service contacts with external vendors, where they provide equipment maintenance and support services. If you are providing your own maintenance and support, and you deal with external vendors only occasionally to address issues with their network, you should not report any contract activity. Therefore, you should leave cells under Wide Area Network ITOB, Metropolitan Area Network ITOB, Local Area Network ITOB and Internet Access Services ITOB blank on their respective worksheets

11. DVA is reporting one in-house Proxy server, the cost of Web-Sense filtering software and the cost we pay DIS for Internet Services on the IAS spreadsheet because we host the Proxy server here at DVA. We provide break/fix support, and it does filter our Internet traffic. However, since we only host one Proxy server in-house, what is your guidance on how I fill out the Service Responsibility Percentage section?

**Answer:** The Service Responsibility Percentage section of the IAS worksheet (as well as the WAN, MAN and LAN worksheets) is intended to collect information on the division of labor for different kinds of activities. These percentages should reflect best-effort “guesstimates” of the percentage of work performed by your agency vs. that performed by a service provider, which could

include DIS. The percentages you provide need not reflect ratios in terms of actual costs, but rather actual work performed.

12. Can Gartner explain how to calculate Port, Circuit and Circuit Availability – Port Bandwidth (in Mb) values located on the WAN and IAS worksheets?

**Answer:** We're after the total bandwidth of your network, and it's a nice to have if Gartner can get that insight about your environment. To calculate, you would consider the throughput of all circuits and ports on your data network.

## Storage

1. When you speak of total databases in the Explain Text, are you speaking of central IT supported database instances or, do you mean something more in line with repositories?

**Answer:** We're not looking for the number of database management systems, here. The correct response is as you suggest and in line with application repositories you back up.

2. Personal databases (e.g., Access) consume a vast amount of our Storage. Should we count personal databases as part of our workload?

**Answer:** The terabytes (TB) of storage (if on the SAN, NAS, etc.) would count, but we don't want those in the count of databases.

3. In the storage spreadsheet there are two cells under the Workload section that I would like clarification how to identify/calculate numbers to go in these cells:
  - Total Databases
  - Average Size of Databases in TB

This is what the "IT Overview Benchmark (ITOB) Explain Text for Storage" document says about these two cells:

- Total Databases: Total number of separate database systems maintained within scope of study.
- Average size of Databases in TB: Total TB of all maintained databases in scope of study/total number of separate database systems.

- (1) What is the definition of a "Database system", as noted in the "Total" database definition above? Is it an individual database? Is it an individual database server? Is it an individual database instance? Is it an application system that uses a database (hence a database system)? Or something else all together? Note the answer to this question will drive how the "Average size of Database in TB" will be calculated.

- (2) How should the “Total TB” number be calculated in the “Average size of Databases in TB” definition above? Is it calculated by summing up the amount of disk space that each individual database has reserved (commonly called allocated space), for each individual database that falls under the entire set of different database systems? Or is it calculated by summing up the amount of disk space that each individual database is currently using (commonly called used space), for each individual database that falls under the entire set of database systems? Or is it something else?
- (3) What database systems are within the scope of this study? Do we only need to consider SQL Server? What about our ADABAS databases (files)? What about all those Access Database files and other database vendor databases? Additionally since these number probably can be easily obtain for SQL Server systems using some simple T-SQL, I wonder if OFM already has a script to that can be run against a SQL Server instance to obtain these numbers.

**Answer:** Total Databases is meant to ask for the number of individual databases; those associated with applications rather than database management systems (e.g., Oracle). Total TB of all maintained databases in scope of study would include all databases that are stored on your agency’s Total TB of Storage being reported (in the same spreadsheet, TB reported in the inventory on rows 38-65). Without knowing your business, it’s hard to generalize what to include or exclude. However, we’ve been asked and advised Washington agencies not to count small work-personalized ACCESS databases that may exist in your computing environment. We encourage you to note your assumptions as you proceed. Check with your IT counterparts at DES about script for SQL. Gartner asks for “Useable Configured” and “Used” storage on the Inventory tab for STORAGE, and depending on what is available, either could be used to calculate an average database size. If you use useable configured space for total database, divide by useable configured space for all storage. If you use used space for total database, divide by used for all storage. If allocated space is easier to determine, then the calculation would be total space allocated to databases divided by total allocated space.

4. The Infrastructure “Storage” worksheet asks for Total Databases, but the explain text for this entry references database systems. Do you want the number of databases or the number of database systems?

**Answer:** Total Databases is meant to ask for the number of individual databases – those associated with applications rather than database management systems (e.g. Oracle)

5. We have a follow up to our questions from last week concerning Storage workloads. Which definition (below) is correct?

- a) 430 different databases and .513 TB of allocated data when you don't dedup on database names, and include system databases
- b) 382 different databases and .506 TB of allocated data when you don't dedup on database names, and exclude system databases
- c) 193 unique databases and .513 TB of allocated data when you dedup on database names and include system databases
- d) 189 unique databases and .506 TB of allocated data when you dedup on database names and excluding system databases

You should be able to get a better sense of the different kinds of total database numbers I can come up with depending on how Gartner wants us to count databases. As you can see the number of databases does changes considerably, but the number of TB is basically the same no matter would method you pick. Note I also used Allocated space. This is the amount of raw disk space each database is actually using. Once we finalize with Gartner what makes sense I can provide a script to other DBA's so they can do their calculation the same way.

**Answer:** The correct definition is represented by “a)” above. It is possible that databases can be duplicated across Production, QA, Development, etc. environments, but what the study is looking for is the total number of databases, regardless of whether that may be duplicated across these kinds of environments.

Total TB of all maintained databases in scope of study would include all databases that are stored on the Total TB of Storage being reported (in the same spreadsheet, TB reported in the inventory on rows 38-65). We ask for “Useable Configured” and “Used” storage in the inventory, and depending on what is available either could be used to calculate an average database size – if you use useable configured space for total database, divide by useable configured space for all storage. If you use used space for total database, divide by used for all storage. If Allocated space is easier to determine, then the calculation would be total space allocated to databases divided by total allocated space.

6. According to the Explain Text for Storage: “All dedicated storage hardware devices including controllers, servers, disk arrays, tape libraries, optical jukeboxes. It also includes the equipment used by the operations staff to support the storage environment (e.g., desktops, laptops, PDAs).” My notes from the September training say: “Storage doesn’t include disks in servers. Backup and archival does count.”

We don’t have a SAN or dedicated arrays for storage. All storage is on drives contained within the servers, including our HP NonStop. Does that mean we don’t have any storage here to report, other than tape backups?

**Answer:** That is correct. Internal storage devices on a server are not considered to be “storage” in the context of the Gartner TCO model and should not be reported separately on the Storage worksheet.

---Would we consider our SQL servers as storage devices?

**Answer:** No. SQL servers should be accounted for under servers (most likely in the Wintel worksheet), and not considered as Storage in the model.

What about the SQL software?

**Answer:** SQL software should be accounted for in the server’s worksheet as well, and not counted under the Storage tower.

---Would we consider our file and print server as a storage device? It’s basically used for storage of MS Office documents, PDFs, jpegs, etc.

**Answer:** No. These would be counted under servers, not Storage.

## Voice Services

1. Employment Security has two telephone centers with hundreds of FTEs manning the center. Did we understand Explain Text guidance correctly? We exclude the staff support, hardware and software from this assessment?

**Answer:** We can count telephones and general hardware (not specialized equipment such as an IVR), costs for dial tone, and support. Gartner has only general office telephone and IVR cost and performance data. Gartner views much of the equipment in a Call Center as “specialized” technology and this assessment is focused on what is commonly present in a general office environment.

2. Employment Security has 24 KEY systems. We are reading that such infrastructure is excluded from this assessment and want to confirm. Want to confirm our approach; we would also in that instance exclude the staff support for the KEY systems?

**Answer:** Your approach is correct. Do not count this hardware or related personnel who support those KEY systems. This technology backed activity is out-of-scope.

3. Do active VoIP ports include ports that have VoIP phones attached AND PC’s daisy-chained to the VoIP phone?

**Answer:** Gartner asks for Active VoIP Ports in the Local Area Network (LAN) only. When there is an active VoIP port with a phone connected and then a PC

daisy-chained to that, Gartner would count this as one Active VoIP Port only, not as two Active VoIP Ports and not as one Active VoIP Port plus one Active Port.

4. On the WAV carrier spreadsheet, in the section labeled “minutes” Gartner asks for the cumulative “fixed to mobile – domestic” and the “fixed to mobile – international” minutes. First, do these entries refer to the minutes for calls made from an agency fixed handsets (land line) to mobile telephones? By way of background, state government’s wide area voice (WAV) network is referred to as SCAN. Many departments hold SCAN bills but what if we are challenged to isolate that detail; our outbound (toll free) minutes going to a mobile device. Is this necessary or is the field a “nice to know,” perhaps?

**Answer:** Gartner’s model balances cost with workload so where minutes are reported, we want to ensure costs are reported. For outbound minutes, the breakout of minutes is a “nice to have” as long as the total is accurate. In other words, if the agency is billed for these minutes, the cost is reported, and then the minutes need to be reported but fixed to mobile need not be broken out separately. We have greater insight if you can do this. Alternatively, use the “unallocated outbound” (row 58) or “unallocated usage” which is defined as inbound plus outbound, combined (row 60) for SCAN use associated with what you paid by way of bills to DIS.

5. The Lottery uses DIS for all its office phone services; local, long distance, voice mail, etcetera. We just pay our bill and they take care of it all. I don’t think we even have the expertise to accurately fill out the spreadsheet on the WAV Carrier, WAV Private, and VPT tabs. Can you get this information from DIS or should we try to figure it out? I have the charges for these categories but it’s not clear where to put them.

**Telecommunication Services**

SCAN – Outside WA  
SCAN- In State  
SCAN – Canadian  
SCAN – International/Special Area Code Calls  
SCAN – Directory Information  
SCAN – Video Conference Bridge  
CO – OLY (Centrex)  
CO – Yakima  
CO – Offsite  
CO – Spokane  
CO – Vancouver  
CO – Everett  
CO – Federal Way  
Order Activity

**Answer:** You’re right. You don’t complete large portions of these Voice tabs as you don’t deal with the break/fix issues on much of this technology; sounds like

your department is purely a customer. Are there other carriers supporting Lottery's voice networks besides DIS? You don't own any of the equipment described for these towers in the Explain Text, do you?

Gartner would like Lottery to try to tabulate its outbound and inbound call minutes as far as workload statistics for FY11 and, put your aggregate, invoiced charges from DIS in column E, under "IS Transfer and Spend." Essentially making this a placeholder until OFM gets clear on how DIS service charges can be appropriately spread back. We'll let you know after you finish this first pass if something does not make sense. Please bring your concerns to Office Hours on Tuesday at 10 am when we have our advisors, present. We might collectively be able to help you finish, or point you towards a resource OFM has not thought of this evening.

6. I have spoken with several different agencies working on this project and everyone seems to have a different idea about what is counted as WAV Carrier and what is counted as WAV Private and what is counted as Voice Premise Technology (VPT). The terminology used by Gartner is unfamiliar to most of us. Can you please clarify these three areas so we are all reporting the same things in the same place? Fish and Wildlife has a PBX in the Natural Resources building that is managed by DIS. Our regional offices are Voice-over Internet Protocol (VoIP) with department-owned equipment. Other small offices use local phone companies for service. Other Olympia offices use the PBX here.

**Answer:** The WAV Carrier in this Model is for public, long distance calling over public switches. For example, your department may be using Century Link (aka Qwest) for long distance. Typically there is an access charge by the long distance carrier as well as a variable part of the bill, charged on a per minute basis. WAV Private is for long distance calling on a network owned by the State of Washington. Gartner does not know how SCAN is configured whether that's a private network or DIS's name for their LD service. VPT is voice premise technology or local service. The PBXs, dial tone, telephones and extension are all expected in this Gartner tower. Gartner would want us to ask more about VoIP. When you are using VoIP, do you have a PBX? A dedicated voice mail server can go into VPT as can VoIP handsets. We're after the total cost of the agency for voice services.

OFM appreciates and has flagged "voice services" today (10/20/11) as high risk deserving careful review as agencies finish to ensure uniformity as workbooks get aggregated. The TCO team has heard your concerns and will explore a strategy to improve the situation with Gartner. Where you were a DIS customer, remember that it's DIS's productivity that is going to be benchmarked and what you are doing to assist, in parsing your bills, is to help us avoid double counting costs when workbooks get aggregated. We understand and appreciate invoices are hard to interpret and/or parse for this exercise. Additionally, OFM and Gartner don't know or appreciate how materially you rely on your own telephony

staff, equipment, switches, trunks, fiber or have standing agreements with private firms such as Qwest or Verizon. With respect to knowing your own ownership position, we will get this righted by the time our engagement concludes. OFM can make corrections with agencies during November until the TCO data set gets fixed in December. There is time for review and revision in the overall project schedule. Please proceed as best you can with Gartner's explain text modules, and this FAQ as your guide.

## Applications Development and Support

1. My agency has assumed that only applications it supports are in scope for this exercise. Is that a valid assumption?

**Answer:** It also includes applications you develop as well as ERP and other software used in development and support. If you mean do you include software like AFRS, the answer would be no, as OFM develops and provides support. You need to be the primary agency supporting the application. The Gartner answer was provided about 32 minutes into the recorded WebEx session on September 20.

2. Would you please re-explain the 80/20 scope for completing the Applications Development and Support inventory tabs?

**Answer:** We are looking for the top 20-30% of your applications and development projects that represent 70-80% of your cost and staffing efforts. One way to do this is to list all the applications supported and development projects in FY11 ranking them from highest to lowest most effort cost to least effort or cost. If you look at the top 20-30% of those ranked highest in terms of cost and level of support, these will usually represent the 70-80% of staffing or spend. These are what we are looking for in detail as you complete the inventory tabs within the Applications workbook. You may report 100% of your applications and development projects for FY11 if you wish, but capturing detail on very small applications usually does not provide additional quantifiable value.

3. Would projects like upgrading our SAN or Databases fall under the Applications side of Gartner's model, or would this expense be covered on the Infrastructure side of TCO?

**Answer:** These would be covered on the Infrastructure side of TCO if work involves upgrading technology. The database project could be included in the development side if it primarily includes changing logical components such as tables, fields etc.

4. Please clarify how to enter FTE time under Applications Development in the Personnel Allocation Worksheet for Agencies. Say we have a developer who last fiscal year spent 20 percent of their time in a DBA role, 20 percent of their time

tracking projects, and 60 percent of their time programming. Would we put 60 percent of their time under “Programmer/Analyst,” 20 percent under “DBA,” and 20 percent under “Project Tracking?” Or would we just put 100 percent of their time under “Programmer/Analyst?”

**Answer:** This FTE should be spread across the Personnel Allocation worksheet according to percentage of kind of work they do and then applied to the appropriate tower.

5. Is the Applications Support tab in the Overview\_benchmark\_applications.xlsx supposed to report the information for a single application or project? If for a single application/project, do you want us to separate this into a separate workbook, add tabs for each application/project, or copy paste new sections for each application below on the same tab?

**Answer:** The Applications Support tab is where agency roll-up information is captured. Detail for each application is captured in the individual columns you fill out on the related, inventory tab. The same goes for Applications Development tab and its related, inventory tab.

6. Can you elaborate on what adaptive and perfective maintenance is in regards to Applications Support?

**Answer:** By adaptive maintenance, Gartner means adapting the application to changes in the software operating environment not in the application capabilities from a users’ point of view. You might have made adaptive changes to hardware, OS, DBMS in the study period and conducted testing. By perfective maintenance, Gartner means change that enhanced the end users’ experience such as performance improvements and only the minor projects that take two weeks or less to implement.

7. On the apps support inventory tab, for sizing of applications: the Explain Text refers to tables that are modified as well as total tables used by application but there’s only a single cell to put our answer in?

**Answer:** As you size applications we want the combined count of tables or data structures in the core repository that are updateable, plus the tables or data structures that the application can read (and not write). Gartner does not need it broken out. Use the combined count for this entry.

8. We are only using about 10% of the functionality of an SAP ERP system in which we have done some customization. Under Applications for Package Customization (% Effort), do we count the customization against the entire ERP system or just the 10% that we use? Do we also count the amount of time spent maintaining the customization in this Package Customization section?

**Answer:** Count just the 10% of the SAP ERP system in use where you support its function. And yes, the answer selected for Package Customization (% Effort) should be based on time you spend maintaining modules you have activated.

9. We use SAP Business Objects for reporting. We have a standard reporting interface, and an ad hoc (web intelligence) interface. The standard interface has canned and/or scheduled reports that support a number of application systems. The ad hoc interface has some predefined reports but allows users to create their own reports against a number of application data universes. In our time tracking system, we do not distinguish time spent for ad hoc vs. standard, or for reports for a specific application. Of course, there is also software licensing to support this environment. Please advise how you might like us to handle this.

Options we see as we study the Model:

- report the software licensing on infrastructure (kind of like DBMS software or document/content management software?)
- report all the reporting as a single 'application' including the software licensing fee there?
- try to prorate the hours across the applications that utilize this reporting? (Pro-rate the software licensing fee as well?)

**Answer:** Please report all the SAP Business Objects for reporting as a single 'application' including the software licensing fee.

10. Can you tell us how to allocate someone in the business area in an IT job class that does Webmaster work?

**Answer:** If the primary function of this person is web publishing and maintaining content, this kind of work would be out of scope for the study. If the person is responsible for programming, debugging, etc., this would be reported in the Applications Support worksheet. If they are involved in support for the server that hosts the website, this would be supported in the Infrastructure workbook.

11. Where would Applications include time spent on Windows 7 upgrades? Would it be per application as a rolled up support project, or would you lump them all as a Window 7 upgrade project? How would the work performed by project managers in support of this effort be captured?

**Answer:** It depends on the nature and scope of the work performed. If this service is performed on an ad-hoc or as-needed basis at the client level, the work would be captured in the *Client and Peripheral Support* worksheet. If this work is part of a larger agency-wide implementation project, where systemic testing, coding and de-bugging is required to implement, this kind of work would be captured in the Application Development worksheet. Further still, if the project required configuration of existing servers, or deployment of new servers, this work would be captured in the Infrastructure workbook. With respect to Project

Managers engaged in this work, if their responsibilities span both application support and infrastructure support, their work and costs should be reflected in both the Applications and Infrastructure workbooks.

12. How do we size?

a. Data marts

**Answer:** Use the size template methodology to size the Data marts. This should be captured in the Application Support or Application Development worksheets depending on whether it's existing or new work.

There can sometimes be confusion on the relationships between Data Marts and Data Warehouses. With respect to counting Data Marts separately or part of the Data Warehouse, a Data Mart would be considered a separate application if the users are a distinct group (i.e., a particular department as opposed to the data warehouse user group) and if the Data Mart has external data in addition to that available within the Data Warehouse (i.e., the Data Mart has a subset of tables that also exist in the data warehouse plus it may have some additional tables including those that make the data mart operate and run).

b. ETL Tools (i.e. Informatica workflows, mappings, sessions; SSIS packages)

**Answer:** ETL (extract/transfer/load) applications are considered middleware - that is, applications that move data between or among other applications. Middleware apps usually have some of their own tables (error logs, etc.) that can be captured. However, the main things to count here are interfaces and background processes. You should consider the boundaries of the applications vs. the middleware and ensure the data being sent or received is accounted for in the appropriate application.

*Regarding question on ETL and the distinction between interfaces and background processes. Gartner writes: The interfaces are the streams of data coming in or going out. To make the data come in or go out of an application there is a background process such as a job that kicks off and runs the moving of the data in and out. The background processes are typically scripts that contain the logic of when to initiate the job and push the data through the interface.*

13. How do we report purchased software licensed and maintenance expenses?

**Answer:** It depends on what kind of software you are referring to. For desktop software, you should report the software costs in the Infrastructure tower for which the software is used. For business software, you would report the maintenance expenses and licensing costs in either the Application Support or Application Development worksheets; depending on where/how it is used. If a

new package is purchased strictly for Application Development, the entire purchase price of the software should be reported in the Development worksheet, regardless of whether the agencies expenses it or not.

14. We have 3 environments – Productions, QA and Development. When sizing the application, do we size only Prod?

**Answer:** Yes. Size only the Production application.

15. We have an effort wherein the management of a COTS system is being transferred. What we recorded in our time tracking system as 'maintenance and operations' relate to (a) tool selection (b) training of staff (c) debugging and (d) setting up the new, destination hosting environment as opposed to what we typically think of as "application support" and I am wondering whether the effort I described above might belong in one or another server environment tabs of the Infrastructure workbook. What do you think?

**Answer:** Gartner believes the activity relates to Application Support but to confirm that guidance, we need to hear more about the kind of tools you were looking at and staff who were trained. Setting up a new host environment; who was involved? This could change the advice on your report.

16. We will report SAP Business Objects as its own application, and so sizing is going to be done by counting the # of reports within it, the universes that it queries, and the # of screens (1 for ad hoc/web intelligence, 1 for standard reports). However, some of our applications have a built in screen/tab that allows direct access to the SAP Business Object reports that support that application. I am unsure how to count such screen tabs: Is that an interface that could count for both the application AND the SAP Business Objects? I was not planning on counting the reports for the application, just the SAP Business Objects. Please confirm I am on the right path here.

**Answer:** You are on the right path with respect to counting SAP Business Objects (SAP BO) as its own application. A universe is typically a collection of tables or the SAP BO way of saying a database, so you want to make sure to count tables in the universes that are read only and read-write. Screen tab built into application to access reports? If the screen tab is purely for navigation, don't count. But if those screen tab has query capabilities then you should count those screens.

17. For our applications inventory, one of the elements used in sizing the application is the # of reports. For us, these reports will be in the SAP Business Objects. To size the SAP Business Objects (SAP-BO) we plan to count the # of reports, and the special reporting universes (aka data views) set up to support it. Would we then NOT count the same reports when we size applications that utilize SAP-BO for their reporting?

To restate our question: AFRS is what we need to size and report in OFM's inventory for this exercise.

- a. AFRS reporting is done vis-à-vis SAP-BO
- b. SAP-BO is also one of the apps we will need to size, and report on for this exercise.
- c. When sizing AFRS, should we count the AFRS reports that are in SAP-BO?
- d. When sizing SAP-BO, do we count all the reports, including those from AFRS and the other apps we are including in our inventory?

**Answer:** Since the reports are unique, you would count them once within the bounds of SAP Business Object application. We would not advise you to count them in AFRS; you don't want to count the same report multiple times if you've already accounted for those as you sized SAP Business Objects.

18. I have a concern about potential overlap between "background" and "interface" as I review sizing definitions and think about application batch processing. Some are to build and/or transform interface data; others exist to perform a "mathematical calculation" which Gartner defines as "background" rather than "interface," Will this be the case when initiated by "buttons or a menu selection?" What about those initiated through a separate, operational batch application?

**Answer:** Interfaces and background processes are different concepts, so they do not overlap. The interfaces are the streams of data coming in or going out. For ETL, there are background processes to make the data come in or go out of an application such as a job that kicks off and runs the moving of the data in and out. The background processes are typically scripts that contain the logic of when to initiate the job and push the data through the interface and how to manipulate it so it can be accepted by the database. Background processes can also include batch jobs or buttons or menu selections that initiate a calculate command or processing function within the application.

19. We have identical file format incoming from multiple external systems. While adding each new interface is fairly routine, it does require some administrative work (table updates, security setup, etc.) by our application analysts vis-à-vis consulting with analysts from the interfacing application, and testing. On an ongoing basis, there are operational (infrastructure and/or application support) issues that vary depending on the interfacing application. Should our count be based on file format? Interfacing application? Or format plus application?

**Answer:** Base your count on format. The identical file format that is coming into the application from multiple external systems is counted once. It sounds like there is an interface that accepts the same data elements regardless of the source. Where the application comes into play is this: an interfacing application may have intelligence to produce multiple outputs depending on what happened

with the data sent by each external systems which is a consideration in sizing. And count the inbound files coming to your application with identical formats as one.

20. When counting screens, is there any consideration given to the complexity of screens? For example, in App#1, a series of 5 simple screens with one data element each is used to update some table. Each of the screens is created based on the results of the previous screen so that the user enters data consistent with business rules. Is that counted as 5 screens? In another example, in App#2, a user enters data by looking at one screen with 5 data elements. There is extensive checking and interaction between 5 controls for the 5 data elements. Is that counted as one screen?

**Answer:** You have a point. However, the sizing approach being used for this OFM analysis is pretty high level and won't take the complexity of the screens, in terms of the number of data elements or fields, into consideration. We have found there can be variance in complexity of screens at the application level, but at the portfolio level this evens out.

***Re: Application 1***

Ask yourself if those screens are independent, or dependent? If each of the 5 screens can update data independently then they would be counted separately as 5. However, if you can't do any updates until you hit the 5th screen, then you would count this as 1 screen.

Basis for this answer can be found in Gartner's Explain Text on page 29 of 32 (labeled 28): It is important to note that a logical input may take up more than one physical screen or form or may exist with other unique inputs on a screen or form. The basic question to ask is whether the user action can be performed independent of any other user action. For example, if a user can add an employee dependent (e.g., a newborn child) to a payroll application independently from adding or changing employee data, then the action of adding the dependent is a unique transaction and should be counted.

***Re: Application 2***

The correct entry for "user screens" is one (1). You could have a greater number of the other sizing elements in App#2 as compared to App#1 as indicated such as in the internal data stores and files, background processes and reports.

21. Page 9 of the Explain Text for Applications Support and Development contains a section on Service Levels. How should we account for requirements that changed with passing time? In other words, what if a project hit their target deadline/budget but with only 80% of the original functionality?

**Answer:** Not on time and on budget if you did not meet the customer's original agreement which met with formal approvals. There is a related question in this section that asks you about variances. You will want to consider for schedule is what it takes to deliver 100% of that functionality and then determine what it took your agency to deliver 80% of the requirements but your schedule variance should be in relation to the original customer agreement.

22. We've looked at definitions but have a number of itemized questions below as we capture end users of portfolio applications.

- 1) The ACES Online Application for public assistance is public facing. Citizens use it to apply for benefits.
  - a. Do we count only those citizens who used the application during the study year?
- 2) We are developing an application called Washington Connection. All citizens could use/benefit from this application. What do we count as end users?
- 3) The definition states: If users are accessing multiple applications or will be benefiting from multiple applications, do not double-count them here.
  - a. How do we make sure not to double count (especially the public)?
  - b. We have staff that uses multiple applications some that are supported outside their administration (e.g. ADSA staff use the ACES system maintained by ESA).
  - c. That same staff person also uses the ADSA CARE and APS applications.
  - d. Since we are rolling up all DSHS information should we instruct administrations to not fill this out and we then simply put in the total number of DSHS staff (reasoning here would be that each staff person accesses at least one application in DSHS).

**Answer:** Don't count the general public as end users for this exercise. Gartner wants to know about staff within your agency that use the application or more generally, State of Washington employees. You might have partner agencies that use the portfolio application; you may include partner agencies and contractors.

You may include individuals whose identity you authenticate and control directly but as you think about Web interfaces, don't include what Gartner described during Office Hours as "self-service" customers who may periodically transact business using a password they generate and control as you complete this workbook. The study objective is to focus on an 'end user' population that is more likely to be creating break/fix work for your technical teams. There could be legitimate overlap between "employee" counts and "end user" counts in your reports (see below)

The screenshot shows a Microsoft Excel spreadsheet with the following data tables:

	C	D	E	F	G	H
34 Services Administration	0.00	0.00	0.00	0.00	0.00	0.00
35 Management & Administration	0.00	0.00	0.00	0.00	0.00	0.00
36 Total FTE	0.00	0.00	0.00	0.00	0.00	0.00

  

ADS STAFFING PROFILE		Overall
Geographic Distribution		
In-house operation managed at client site		0.00%
Outsourced operation located in same country as client		0.00%
Outsourced operation located in nearshore location		0.00%
Outsourced operation located in offshore location		0.00%
Total		0.00%
	In-sourced	Contractor
Average hours per FTE (person year)	0	0

  

Applications Support Customers	
Employees	0
End Users	0
Number of Applications	0

  

ADS Service Levels		Target	Actual
Number of Severity 1 problems		0	0
Time to Fix Severity 1 problems (hours)		0	0
Number of Severity 2 problems		0	0
Time to Fix Severity 2 problems (hours)		0	0

23. On Page 11, last paragraph, of the Application Development & Support Explain Text it says: If there is multiple enhancements project against a single application, they can be combined into a single detail record in this section.

1. Can you explain what this means?
2. Does that mean we can combine every 2 week + “project” on one application as one big project?
3. Does that mean we can combine the 4 quarterly releases related to the ACES application into one project?
4. What are the advantages/disadvantages of combining projects?

We ask because the answer to this question impacts each data element that uses “number of projects” in its calculation for this Model, both the view of our applications development during FY11 as a whole and related development projects inventory results.

**Answer:** We meant by this: yes, if an application had multiple enhancements done to it during the study year, instead of reporting each effort, individually, you may combine releases. The downside to combining projects being that you need

to be careful to keep new functionality you've accomplished in balance with the contributed effort. Keep detailed notes about what you combined for historical reasons and to answer questions if your productivity comes into question when Gartner benchmarks so we can talk about what drove variances.

24. Can you provide a more detailed explanation as to why lines-of-code sizing is not recommended for 4GL languages? We need to know in order to determine how we will size about 75% of our inventory.

**Answer:** For older languages, such as COBOL, there are standardized practices readily available tools that can provide very accurate lines-of-code estimates. However, most 4GL languages are visual and the concept of inheritance can cause distortions in the lines of code count. There aren't any tools available that provide reliable lines of code estimates for 4GL, and research has shown that the line counting method for these kinds of applications can be off by orders of magnitude. For these reasons, the size template method is recommended for applications written in 4GL/object oriented/graphical languages.

25. We were completing the ERP inventory and there was no row for sizing information. Are we not sizing ERP applications?

**Answer:** For ERP systems, what is being requested is the number of named and concurrent users, not the size of the application.

26. We are counting SharePoint under applications as an ERP. Is this incorrect? We have a heavy amount of customizations

**Answer:** Gartner generally considers SharePoint to be a "Productivity" application, and as such, this would be captured in the Infrastructure (Wintel) workbook. However, if there is a heavy amount of SharePoint customization work being done, then the SharePoint software and the customization work done by staff should be captured in the Applications workbook.

27. In the infrastructure training I attended, my notes say to count SharePoint (service from DIS) on Wintel spreadsheet, applications developed on SharePoint under application support or development, and external gateway (like Commerce uses) in Internet Access.

**Answer:** SharePoint should generally be reported on the Wintel worksheet unless there is a large amount of SharePoint application development being performed. If this is the case, the SharePoint software and software development costs would be reported in the Applications workbook. External access applications should be reported in the Inter Access Services worksheet.

28. Our DSHS Social Services Payment System (SSPS) has a security component that is used by most of our applications. This component accesses some

database tables to authenticate users (read only access). Would this table count be added to the table count for each individual application?

**Answer:** In this case, each individual application would have a screen that is used to provide input to the authentication tables in the security component. Therefore, you should count the screens used by each individual application to access the security component as well as the number of tables used by the security component to return a result.

29. SSPS has a window service that checks the database table for scheduled tasks that need to be executed throughout the day. Whenever, there's a need for a new functionality, the developer will write the code and compile into DLLs/assemblies. The code from these DLLs will be invoked by the window. Each of these DLLs/assemblies performs different functionalities. So do I treat the whole thing as one big application or should I treat each DLL/assembly as a unique entity?

**Answer:** Since the DLLs/assemblies that are being invoked are independent background processes and work autonomously, you would count them separately as unique, multiple entities.

30. JCL (for IBM) and similarly ECL (for Unisys) are considered 2GL as listed in "IT Overview Benchmark Explain Text for Application Development & Support" document, page 29. We are supposed to be including their counts but there is no line item for them in the "Apps Support Inventory" worksheet. I can see Low-level languages, 3<sup>rd</sup> Generation Language and COBOL, but not 2<sup>nd</sup> Generation language. How should I account for these 2GL languages?

**Answer:** These should be counted as Low-level languages.

31. We have several SQL reports that do not associate with an application. Users run these reports from their internet browsers. I'm assuming that I have to count these reports along with the underlying tables. Is that correct?

**Answer:** You would report the service that is being accessed to generate the reports as a separate reporting application, and within that application, count the number of tables used to create the reports.

32. Also, if a report contains user's criteria selections, do I count each selection as one report?

**Answer:** No. Each selection criteria should not be counted as one report; rather, this report offering should be counted as a single report. Even though the composition of one user generated report to another could vary widely

depending on the type and number of report selection criteria they select, there is still a finite number of input criteria that can be selected, and therefore this should be considered a single report.

33. DSHS has had several staff working on what is now the Health Care Authority (HCA) Provider One application. Further, although these are DSHS employees, the cost for their time was paid by HCA. How should we account for the work DSHS completed for the ProviderOne project? Below are two suggestions/questions:

- During the timeframe that is being accounted for, the Aging and Disability Services Administration (ADSA) had about two and ¾ FTE's that worked 100% on the Provider One Project. Should these staff NOT be included in our accounting of expenditures?
- Separate from the above FTE's, ADSA has a number of FTE's that are directly related to CARE changes because of the Provider One Project. Since these FTE's are directly related to changes in CARE, we would count these FTE's in our accounting of expenditures?

**Answer:** The goal is to balance workload with cost. Even though these FTE's report to DSHS, if HCA paid for the cost of their services. The cost and workload should both be reported in the HCA TCO Application Workbook, not in DSHS'.

34. Does the "software" on the App Dev and App Support tabs need to be depreciated?

**Answer:** Vendor COTS packages are not depreciated. For COTS packages used for Application support, you should report the annual maintenance cost. If you are implementing a new COTS package that you didn't have previously, capture the full purchase price. For software development tools where you pay a license fee, you may have some software tools that are being depreciated, provided that they rise to your agency capitalization value threshold.

35. A project ends on May 31, 2011. The evaluation year ends June 30, 2011. That means there is only 1 month of implementation. The Service Level section on the App Dev tab asks for defects during the first "3" months of implementation. There is only 1 month of implementation in the evaluation year. Do we count anything? If so, what do we count (only the 1 month?).

**Answer:** In this case, since you do not have a full 3 month reporting history to evaluate, leave the defect count blank.

36. How do we count Ad-Hoc reports?

**Answer:** Reports created by end-users themselves should not be counted.

37. I do not see any reference to Software as a Service (SaaS) or Cloud type business functionality software. Commerce has specialty business applications that we (IT) have absolutely nothing to do with in support, maintenance or development. They are 100% hosted, customized, and maintained by the third party vendor and all costs are paid directly by the business units, not IT. Do we account for these in this assessment? If so, only in the summary sheet? I assume I would not include them in the support inventory as we do not support them. Also, for one of these SaaS systems, the business unit has data sharing agreements with local governments by which we pay up to \$20K per year per entity (this varies) for them to input their data. Do we include these costs and where would I put them?

**Answer:** No, you will not include this SaaS in the assessment for Commerce given that the specialty business application you described is 100% hosted, customized and maintained entirely by a third party vendor. Gartner advised OFM that in this scenario, data sharing costs would also be excluded from the TCO study.

Please refer to [slide 5 in the workshop](#) on the Applications module for overarching guidance. We're studying our resourced involvement in supporting or developing line of business applications. Had Commerce spent time building/supporting interfaces, then it would report workload, associated effort and associated costs. Sizing would need to be included and the cost would need to be broken out between applications support and infrastructure for the hosting costs. In the applications module, you could report what was paid to the vendor in the "Business Functionality Software" row under the column that reads, "Outsourced- External to State."

38. Please explain the difference between "customization" and "configuration" as we study application development/support.

**Answer:** Configuration is made using the built-in tool sets within the package to add fields, change field names, modify drop-down lists, add buttons, etcetera. You're taking advantage of what's enabled in the tool; bundled with the package. Customization involves code changes to create functionality that is not available through configuration.

39. We have built an administrative application to set up end-user access and system monitoring. We have also built a report broker which hands off requests for reports from the applications to SAP/Business Objects. Do either count as customizations? If yes, do we count associated screens?

**Answer:** The administrative application to set up user access and system monitoring are technical features. This is not business functionality and would not be counted. Second item, report broker also sounds like a technical feature rather than business functionality to be sized.

We are planning to count log on screens, forgot password screens, history screens, parameter page screens, report viewer screens and a web intelligence design screens as logical inputs. Should we count the screens in the Administrative application we've built as well?

**Answer:** To be counted they must be allowing the user to do queries or update data. Security functions should be included if, for example, screens are provided to maintain security data. Menu screens that do not update any end-user data should not be included as you count logical inputs.

40. Several tables (security, audit, history) come with this software to support user access rights and views. These should be included in the count, right?

**Answer:** Security, audit and historical or back-up tables should be included in the table count if called for in business requirements.

41. What about base report definitions stored as a separate file within the system file? Related to this, when a user schedules that base report to run having modified parameters to customize the report, another file gets stored in the system file repository that is that base report plus the scheduling/parameter data. Should we count only the base report as a file? Base report plus all of the scheduled and/or historical instances of that report? Or, neither?

**Answer:** None are counted as tables. The final deliverable is an output or report, not files that store the parameters.

42. Business Objects (BO) universes are pointers/views back to the data sources, which are the application data base tables. The sizing requires that we consider and count logical tables and structures used and maintained by an application. How do I proceed?

**Answer:** Count tables in the Universe not pointers/views back to the data sources. These tables are needed for screening and reporting in Business Objects.

43. We are currently running 2 release levels of SAP/Business Objects (one supports standard reporting, one supports ad hoc reporting). We also have Crystal Reports and Web Intelligence Tools. Should the costs for this software be reported on Infrastructure or within the Enterprise Reporting application?

**Answer:** These are applications tools and should be in the Application tower.

44. Do we count requests for system access as a service request? They generally come through the help desk so they will be reflected in our Infrastructure workbook but, do we double count as we complete the Application workbook and related studies?

**Answer:** If they are handled by the help desk then they would not be counted in the service request count for Applications Support. However, if these requests are funneled to the applications group to fulfill, then they should be counted in the applications support service request bucket

45. We are planning on counting only those defects/ service requests that have to do with the operation of this structure, not with complaints/service requests for modification of a given base report used to support a particular application. Please validate this is the right approach.

**Response:** That's right. Defects/service requests reported on the inventory tab should be counts related to the specific application under study, being reported, as a subset of your portfolio.

46. Looking for definition that differentiates Severity 1 from Severity 2 as Gartner seeks from us in our report. Could not find these terms defined in Gartner's "Explain Text" materials. Please, advise.

**Answer:** Severity 1 are "critical" interruptions such as when the application aborts spontaneously or users' experience serious data corruption or failure. Severity 2 are major interruptions but less severe. The application may not be functioning but remains available; users might experience temporary work-around-the-problem until corrected or solution, found. Gartner clients in our benchmarking practice may have legitimate and different definitions but generally speaking, we're asking departments about these kinds of interruptions for applications in production.

47. Page 28 (prints as page 27) of the ITOB Explain Text for Application Support and Development gives examples of background processes. We typically consider "background processes" to be batch jobs. Our team is asking if they should treat that which moves or uses data as a background process; in effect, count each procedure? Does Gartner really want all of the buttons/menu selections that kickoff (data streaming) "processes" to be included? Are we looking for distinct jobs or scripts?

**Answer:** The background process count should include the number of jobs in the scheduler. If they are independent data feeds, report them as multiple background processes rather than as a single one. You might find "jobs"

packaged in a scheduler for performance reasons but consider whether each executes independently as you size up.

48. For COTS solutions that we procure (and don't know where developed), how do we account for geographic distribution?

**Answer:** What Gartner is concerned with is "staffing" and the Model revolves around queries about support resources. Are you outsourcing in a near or off-shore location? With a vendor solution, they will give you new releases, etal. That's not what's being asked as you start this tab. {Canada would be a near-shore location in term of this pull down menu}

49. We understand that Development & Support Software is for IT Tools only. We are less sure about **Business Functionality Software**. Is this software used in development and/or maintenance of an application used to do some kind of business function such as sending email from within the application. Or is this the cost of off-the-shelf vendor packages (maintenance agreements and/or purchased) during the study year for applications used by our business staff?

Non-Personnel
Software
Development & Support Software
<b>Business Functionality Software</b>

*ITOB Explain Text for Application Development and Support reads:*

**Software**

*This includes both Development Software and User Vendor Packages (Business Functionality Software). Development Software includes software (Languages/compilers/databases, Development/Testing tools, IS Management) required by the application development and support staff members to do their jobs. **Business Functionality Software includes cost of off-the-shelf user vendor packages. For application development, include the purchase costs for any off-the-shelf vendor packages implemented within the study time frame.** If the package implementation spanned multiple years, prorate the purchase costs included in the analysis based on the amount of effort completed on the project in the study year over the total project effort. For application support, provide the annual maintenance cost of off-the-shelf vendor packages.*

**Answer:** We're looking for what costs you incurred (purchase; depreciation expense; license) for software that enables your agency to perform its business functions. We're studying from an owner's perspective, so think portfolio. *Don't report personal productivity suites (shrink wrapped) for employees in this workbook. That expense should have been captured in your Client and Peripheral tower within the Infrastructure workbook to keep those costs aligned with desktops.* On this side of the TCO model, you're profiling the annualized cost of your "line of business" applications. When you're working on the roll-up tab for Support, annualize cost for business functionality software in production. When you're working on the roll-up tab for Development, annualize cost for

business functionality software not yet in production. Report any maintenance you might have agreed to pay separate from software license. There's a column in the Framework dedicated to maintenance agreements for "business functionality" or "development and support" type software.

50. Our situation is that we have several programs that use a system totally provided by a vendor, hosted on their servers, supported and maintained by them. The IT shop typically only reviews the data security issues to comply with ISB standards. This type of product is termed Software as a Service (SaaS). Our question to OFM/ Gartner, do we capture the annual maintenance or licensing costs in cell 14i of the Applications Development tab? Typically the business sets up a license agreement for a 3-5 year period. If we do need to capture the costs what method should we use?

**Answer:** If this is application development (or did you mean application support) we suggest you report the annualized cost of this agreement for the study year under the column labeled "Outsourced-External to State."

51. We have 178 applications listed in our IT Portfolio. We have sized 28 applications in Support. Which number should be included in this field?

Applications Benchmark – Applications Support Tab

Number of Applications	178	is correct response
------------------------	-----	---------------------

52. We have 33 projects in our IT Portfolio. We have sized 28 development projects. Which number should be included in this field?

Applications Benchmark – Applications Development Tab

Number of Projects	33	is correct response
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53. Can I please get further clarification on how to populate the Staffing Profiles under Applications Support and Development? Are you looking for percentage of applications that we're reporting on, or % of Applications Total FTE's? If FTE's, do we just provide our best guess if we can't get exact amounts of outsourced FTE's from Vendors?

**Answer:** The Staffing Profiles under the Applications Support and Development Spending and Staffing tables is to be based on the % of Applications Total FTEs. The workbook is structured such that you first report on all application support going on during the study year for your agency, the "inventory" tabs are reserved for study of a subset of your portfolio. Same goes for application development. If you have vendors to whom you outsourced application support and/or development and know what hours they contributed, please report those as FTE equivalents and let us know by way of a comment how you converted hours to FTE. Most organizations that use this Model can only provide the cost they

incurred for this outsourced labor. In that case, just provide the cost for the outsourcing.

54. This question pertains to Applications Development TAB – Row 70. Department of Health has different project status descriptions than referenced in this table. We have projects that are “started” but some various reasons go into “suspended” status or some might call them “on-hold”. I am thinking they should be categorized as BACKLOG. But the row description terms is “Number of Projects Planned but not Started (backlog).” Is that how we should report our suspended projects?

**Answer:** If this application development project is on your inventory being profiled (subset representing 70-80% of your efforts in the study year) then you will find a “suspense” option in the pull down menu. Otherwise, no, don’t report “suspended” in this BACKLOG row. We take a strict view of this as projects planned but not started.

55. This question is related to the TARGET column. Do agencies really establish “targets” for the backlog and cancelled projects? If the value is left blank what happens? Please, advise.

**Answer:** This is a general model used across clients. There are instances where organizations have set a target to reduce a backlog. You can leave the value, blank or embed a comment should you have such a target.

56. **New!** As we report expected labor costs, is Gartner expecting annualized average values where the project spans multiple years? To illustrate:

Hypothetical

Before study year:	2 FTE (FY10)
Study year:	6 FTE (FY11)
Remaining year:	6 FTE (FY12)
	4 FTE (FY13)
	<u>2 FTE (FY14)</u>
	12 FTE / 3 years = 4 FTE

Is the correct response, 4 FTE person years of effort remains? Or should we collapse the years and report 12 FTE.

**Answer:** For projects that were still in progress at the end of 12 months study timeframe, we want the total labor remaining for the project which, in the example above, would be 12 FTE. Please make sure the sizing data (lines of code or size template) takes into account the full size when done, including that remaining.

57. **New!** My understanding is that we report projects where a system was rewritten into new technology on the Application Support Inventory sheet rather than, the Development Project Inventory sheet. Is that true even if some new functionality was added as code was rewritten?

**Answer:** Rewrites with no new functionality do belong in Application Support. If the new functionality was material in terms of work effort and the workload size/effort/costs can be separated out from the rewrite work, then please do so and report it in Development.

58. **New!** Our development staff work on multiple systems projects, so we calculated the FTEs on both the Application Support Inventory and Development Project Inventory sheets based on only the hours worked on those systems/projects. It won't correlate to the Employee sheet because it does not factor in time spent on leave, training, administrative work, etcetera. Will that cause a problem?

**Answer:** As long as you take the hours worked on those systems/projects and divide by a hours-to-FTE conversion factor that doesn't factor in time spent on leave, training, administrative work, etc., then this will not be a problem.

59. **New!** On the Applications Support and Applications Development sheets we summed all internal users (employees) for all reported systems, so they're double/triple/etc. counted. Is that correct? (We understand that we don't double count external users)

**Answer:** We ask in the Employee and End User counts that even if internal users (employees) are using multiple systems or benefit from multiple projects that you count them once.

## Personnel Allocation Workbook (PAW)

1. In the Personnel Allocation Worksheet for Agencies there are some critical personnel areas that are not captured. These areas include management time (particularly for WMS time), planning time (both current and strategic), and enterprise architecture time. Are these staff out of scope or will such salaries be rolled up into the total personnel costs?

**Answer:** These are considered within the Personnel Allocation Worksheet Gartner provided for Washington's TCO exercise. Management time generally belongs in "services administration" using Gartner vernacular; planning and EA should be included under "planning and process" management. These labor categories appear within several individual towers of your workbooks, and you may find a need to spread your managers across several towers depending on the scope of the job they performed during the study year.

2. How many levels of IT management should we include in this study? My training notes say two levels up from the technicians. Please confirm.

**Answer:** It's a rule of thumb but we've discussed when you might include a titled "managers" or a "chief information officer" because they are doing the work described in our manual. That's okay where that happens for Washington agencies. It helps Gartner understand your operational profile and it should not skew the results, greatly, if you go beyond two layers of management.

3. We have ITS2-4 staff used for our Intranet and Public Web site that is within the Communication and Education section of the Department of Licensing (DOL). Should they be counted as an expense in the TCO?

**Answer:** Generally, yes, these personnel should be counted but just how much (full or partial FTE) depends on the work they performed with respect to DOL's intranet and public web site during the last year. It sounds like this labor belongs in DOL's Applications Development and Support tower (workbook tab) even though staff may be under the direct control of a business unit (Communication and Education sections) rather than your IT shop.

What you will want to explore is the nature of work they performed during the last year for Communication and Education sections.

- Look at page 5 of the Explain Text Guide for Application Development and Support (ADS).
  - Gartner wants you to count the time spent fixing programming problems behind the operation of your website and intranet.
  - You may end up counting only a portion of this labor expense in TCO (e.g. 0.2 FTE) and that's okay. It might not have required all of their time if these applications were relatively stable for DOL during the study year.
  - The Personnel Allocation Worksheet is set up to make this easier to record, with an ability to distribute time across towers including an "out of scope" column for these DOL employees.
4. We have ITS2-3 staff that do some support for our end customers in producing reports, trouble shooting system problems to see if they are really problems (or not knowing how the system works) as well as some system testing. Do we count that staff?

**Answer:** Yes, and it sounds like their time also belongs in the Application Support and Development tower (tab). You may end up splitting their cost (labor) between support and development tower with respect to "testing" work you

describe. Please look at Gartner's definitions to know where to draw the line when you apportion their time (FTE) in the TCO model.

- Small enhancements under two weeks time and technical upgrades or projects these staff performed that produced no new functionality for DOL users means their hours constitute "support" of DOL applications rather than "development" of DOL applications.
- Some discussion with these staff of how they spent the last year may be insightful as to where to count their labor.

5. If someone was furloughed for 3% of the year, I can see more than one possible ways to capture that in the Personnel Allocation Worksheet. Was there any guidance at the training sessions?

**Option 1:** The 0.03 should be included in "Out of Scope" on the PAW

**Option 2:** The 0.03 should not be entered on the PAW, but the FTE check should equal 0.97, which would contradict the column header "FTE Check (should equal 1.0)"

**Option 3:** Ignore furloughed time altogether so it is not reflected in any PAW FTE count Also, would I apply the answer to the above of people who worked, for example, only four months in FY11?

**Answer:** We looked at your options. We would suggest modeling the response where the 0.03 should not be entered on the PAW. Therefore, you expect when it is populated that you see 0.97 FTE spread across towers rather than 1.0 FTE. And this way, you've reserved the undefined Out-of-Scope column for effort that Gartner's model does not count by definition of common infrastructure. And your comment field can then be used to record whatever notes you might need to interpret or understand results by employee. And yes, you would only report .33 FTE for someone who worked for L&I 4 months out of 12 in FY11. By the way, agencies do not have to file the PAW; it is your tool to backup what your report vis-à-vis labor and be in a position to know where your staff efforts were focused in the past year. Make a copy and you can similarly distribute contract labor for your TCO workbooks.

6. When figuring cost of supporting agency assets, if you use contractors, should they be included in the Personnel Allocation Worksheet (PAW)? If so, what is the best way to do this?

**Answer:** Yes, contractor costs should be captured if they are used. The easiest way to account for these is to copy the employee PAW worksheet and re-name the copied version "Contractors". In this way, you can separately capture contractor costs for inclusion into the appropriate tower worksheet.

7. How do we account for training costs for IT staff when training is provided by a source outside the agency?

**Answer:** Costs for IT staff training should be included as part of the fully burdened FTE cost in the Personnel Allocation Worksheet. The time staff spends in training should not be broken out or excluded from their fully burdened FTW cost broken out as a separate activity on the Personnel Allocation Spreadsheet.

8. In FY11 Ecology (and a number of other agencies) participated in the Shared Services Initiative. Significant time was spent by in the work. This work did not directly support each agency's mission but rather the effort was in support of the new state data center. How should these hours be counted? If counted under what tower?

**Answer:** The work should be included in scope as Planning & Process Management within the towers that were associated with the planning. E-Mail and Server Operations would be within the server towers (Unix, Linux, Wintel etc.), Storage (if SAN/NAS/DAS was included). Help Desk time would be put into Help Desk, and Desktop work to Client & Peripherals.

9. What about supervisory time spent on GMAP?

**Answer:** If this effort is part of their official job and function, you can count it. Are they already in your inventory managing technology? Since we're talking about a manager, you might allocate their time between infrastructure towers, or for instance, divide between application support and development proportionate to the numbers they supervise.

10. What is a system analyst? How is that different than a business analyst?

**Answer:** Gartner places System Analyst in the in Programmer Analyst category. These resources are generally involved in the technical development of new applications. Business Analyst has its own staffing category outside of programmer analyst. Business analysts are generally involved on the business side and perform functions such as helping to translate business requirements into technical requirements.