

## IT 463

### Deliverable 3 - Group 3

#### PROPOSED SOLUTION /RECOMMENDATION

Our proposed solution to the reduced schedule and budget as per client's requirements, includes a newly revised TCO, WBS, and budget. The proposed solution TCO includes the addition of an IT Security Consultant who is assigned 110 hours of work annually. The WBS was reduced by approximately 17 days to accommodate the 10% schedule reduction. Some of the tasks were parallelized, personnel were rescheduled and reassigned to reduce the cost and schedule. The new closing date is Dec 7, which brings the project back on track. The proposed solution schedule has a 5-day slack. These changes meet the client's needs. The budget reduction in the revised plan eliminated the surplus which resulted in a \$3,887 deficit. This deficit doesn't create serious risk because the TCO and WBS will be revised in the proposed solution to reduce costs. The laptop replacements will be changed from the **Dell 5400** to a cheaper but comparable **HP 15-dy2089ys 15.6** costing \$650 which will save \$659 per laptop. The annual savings on the change of workstation laptops will be \$3,295 annually. The workstation desktops will also be replaced from the **Dell HP G2 Tower Z5** to a cheaper but comparable **HP 24-dp0158qe AiO PC** costing \$800 which will save us \$474 per desktop workstation. The annual savings of the workstation desktop change will be \$2,370. These reductions amount to an approximate savings of \$5,665 annually. The budgeted contingency amount will also be reduced from \$10,000 to \$5,000. This will save \$5,000 per year. The hardware savings of \$5,665 combined with the \$5,000 saving from the contingency amount reductions, and the WBS reduction saving of \$5,986 results in a \$12,564 surplus. This surplus exceeds the MOV metric of being below budget by 10%.

Note: These reductions do not result in a change of scope of the project. The values calculated are based on the TCO values. The cost overview given by the WBS has exactly allocated hours to the personnel, but the TCO also has extra padding hours for the personnel which is the reason for the discrepancy in the values.

## PROPOSED SOLUTION PROJECT SUMMARY REPORT

The following table presents the proposed solution project summary report with details of project attributes obtained from the Microsoft Project

### Dates

<b>Start</b>	09/02/21	<b>Finish</b>	12/7/21
<b>Baseline start</b>	09/02/21	<b>Baseline finish</b>	12/30/21
<b>Actual start</b>	NA	<b>Actual finish</b>	NA
<b>Variance</b>	0 days	<b>Finish Variance</b>	-17 days

### Duration

<b>Schedule</b>	67 days	<b>Remaining</b>	67 days
<b>Baseline</b>	84 days	<b>Actual</b>	0 days
<b>Variance</b>	17 days	<b>Percent complete</b>	0%

### Work

<b>Schedule</b>	1,016 hours	<b>Remaining</b>	1,016 hours
<b>Baseline</b>	1,296 hours	<b>Actual</b>	0 hours
<b>Variance</b>	280 hours	<b>Percent complete</b>	0%

### Costs

<b>Schedule</b>	\$68,694	<b>Remaining</b>	\$68,694
<b>Baseline</b>	\$89,655	<b>Actual</b>	\$0
<b>Variance</b>	\$20,961		

### Task status

### Resources status

<b>Tasks not yet started</b>	68	<b>Work resources</b>	8
<b>In progress</b>	0	<b>Over allocated work resources</b>	0
<b>Completed</b>	0	<b>Material resources</b>	6

The total duration for the tasks is 67 days and the expected cost is \$68,694.

## PROPOSED SOLUTION PROJECT TCO:

The following table lists the proposed solution TCO:

Resource	Description	Proposed Plan Cost
<b>Salaries Personnel</b>	Project Manager (1 person*\$48/hr *400 hrs)	<u>\$19,200</u>
	Tech Team (3 people*\$32/hr.	
	Tech 1 for 150 hrs.	\$4,800
	Tech 2 for 120 hrs.	\$3,840
	Tech 3 for 150 hrs.)	<u>\$4,800</u> \$13,440
	<b>TOTAL (t1)</b>	<b>\$32,640</b>
<b>IT Dept Salaries:</b>	City Dept Salaries:	
	1 full time IT coordinator (2 weeks, 80 hrs. * \$30)	\$2,400
	Public safety IT specialist (2 weeks, 80 hrs. * \$23)	<u>\$1,840</u>
		<b>\$4,240</b>
<b>IT Security Consultant:</b>	Security Analyst (12 days, 110 hrs. * \$41)	<b>\$4,510</b>
	<b>TOTAL(t2)</b>	<b>\$41,390</b>
<b>Server</b>	Replacing 8 servers, servers 2 per year \$1,780 per server	\$3,560
<b>Workstation Desktops</b>	Replacing 5 per year, \$800 per desktop workstation	\$4,000

<b>Workstation Laptops</b>	Replacing 5 per year, \$650 per laptop workstation	\$3,250
<b>Wireless Network</b>	Replacing facilities routers 1 facility per year, 5 per year, \$224 per router	\$1,120
<b>Wired Network</b>	Replacing 2 switches per year, \$442 per switch	\$884
<b>Storage</b>	Replacing backup servers to store data into cloud, 1TB/ month	\$48
<b>Software</b>	Maintaining current software licensing	\$11,984
<b>Training</b>	2 days on site training, \$500 per day (every year)	\$1,000
<b>Maintenance and Support</b>	1 week, 40 hrs. * \$30 per hour	\$1,200
	<b>TOTAL(t3)</b>	<b>\$27,046</b>
<b>GRAND TOTAL</b>	<b>t1+t2+t3</b>	<b>\$68,436</b>

From the TCO table above, the total amount of \$68,436 is within the budgeted amount of \$88,000. Each resource cost is listed and the per unit cost of each resource is supported by a source link shown in the cost of resources table below the budget.

Note: The grand total of \$68,436 does not include the cost of office supplies (\$2,000) and contingency amount (\$5,000).

## PROPOSED SOLUTION PROJECT BUDGET

Below is the table that shows the proposed solution project budget from the first year to the fourth year.

	Year 1	Year 2	Year 3	Year 4
<b>Funds</b>	\$88,000	\$88,000	\$88,000	\$88,000
<b>Project Team Salaries</b>	(\$32,640)	(\$32,640)	(\$32,640)	(\$32,640)
<b>IT DEPT SALARIES</b>	(\$4,240)	(\$4,240)	(\$4,240)	(\$4,240)
<b>IT Security Consultant</b>	(\$4,510)	(\$4,510)	(\$4,510)	(\$4,510)
<b>Office Supplies</b>	(\$2,000)	(\$2,000)	(\$2,000)	(\$2,000)
<b>Proposed Plan</b>	(\$27,046)	(\$27,046)	(\$27,046)	(\$27,046)
<b>Contingency</b>	(\$5,000)	(\$5,000)	(\$5,000)	(\$5,000)
<b>Total Surplus</b>	\$12,564	\$12,564	\$12,564	\$12,564

From the budget table above, a yearly fund of \$88,000 is allocated for this project out of which all costs for each year are deducted, which includes the contingency amount of \$5,000. A surplus of \$12,564 is ascertained for each year after adjustments are made.

## PROPOSED SOLUTION COST OF RESOURCES:

Below is the table that describes the new proposed cost of resources.

Resource	Cost	Source
<b>Project Manager</b>	\$48 per hour	<a href="https://www.zippia.com/software-project-manager-jobs/salary/">https://www.zippia.com/software-project-manager-jobs/salary/</a>
<b>Tech Team</b> (Tech 1, Tech 2, Tech 3)	\$32 per hour	<a href="https://www.salary.com/research/salary/recruiting/tech-analyst-hourly-wages">https://www.salary.com/research/salary/recruiting/tech-analyst-hourly-wages</a>
<b>IT Co-Ordinator</b>	\$30 per hour	<a href="https://www.zippia.com/technology-coordinator-jobs/salary/">https://www.zippia.com/technology-coordinator-jobs/salary/</a>
<b>Public Safety IT Specialist</b>	\$23 per hour	<a href="https://www.governmentjobs.com/jobs/3256500-0/public-safety-specialist-ft">https://www.governmentjobs.com/jobs/3256500-0/public-safety-specialist-ft</a>
<b>IT Security Consultant</b>	\$41 per hour	<a href="https://www.payscale.com/research/US/Job=Information_Technology_(IT)_Consultant/Salary">https://www.payscale.com/research/US/Job=Information_Technology_(IT)_Consultant/Salary</a>

Resource	Cost	Source
<b>WIRELESS NETWORK</b>  <b>AX3600 Wi-Fi 6 Access Point (WAX218PA)</b>	\$180 per Router	<a href="https://www.netgear.com/business/wifi/access-points/listing-filter/multigig-2/under-275/ax3600/">https://www.netgear.com/business/wifi/access-points/listing-filter/multigig-2/under-275/ax3600/</a>
<b>WIRED NETWORK</b>  <b>Cisco® Catalyst® Digital Building Series Switch PoE</b>	\$442 per device	<a href="https://networkdevicesinc.com/products/cdb-8p?variant=32781089570919">https://networkdevicesinc.com/products/cdb-8p?variant=32781089570919</a>  <a href="https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-digital-building-series-switches/datasheet-c78-738206.html">https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-digital-building-series-switches/datasheet-c78-738206.html</a>

<p><b>WORKSTATIONS</b></p> <p><b>HP 24 – DP0158QE AiO PC</b></p> <p><b>HP 15-dy2089ms 15.6 Laptop</b></p>	<p>\$800 per workstation</p> <p>\$650 per laptop</p>	<p><a href="https://www.hp.com/us-en/shop/pdp/hp-all-in-one-24-dp0158qe">https://www.hp.com/us-en/shop/pdp/hp-all-in-one-24-dp0158qe</a></p> <p><a href="https://www.microsoft.com/en-us/d/hp-15-dy2089ms-156-laptop/8qkt9whdj64x?activetab=pivot:techspecstab">https://www.microsoft.com/en-us/d/hp-15-dy2089ms-156-laptop/8qkt9whdj64x?activetab=pivot:techspecstab</a></p>
<p><b>SERVER</b></p> <p><b>HP ProLiant ML350 Gen10 Server</b></p>	<p>\$1,780 per server</p>	<p>Specs <a href="#">HPE ProLiant ML350 Gen10 Server (Quick Specs/a00021852enw.pdf)</a></p> <p>Cost <a href="#">HPE ProLiant ML350 Gen10 server   HPE Store US</a></p>
<p><b>BACKUP STORAGE</b> <b>Cloud (AWS- Glacier)</b></p>	<p>Glacier \$0.004/ GB Per month</p>	<p><a href="https://aws.amazon.com/s3/pricing/">https://aws.amazon.com/s3/pricing/</a></p>
<p><b>Microsoft Office 365</b></p>	<p>\$580 per year</p>	<p><a href="https://www.mychoicesoftware.com/products/microsoft-office-professional-plus-2019-open-government">https://www.mychoicesoftware.com/products/microsoft-office-professional-plus-2019-open-government</a></p>
<p><b>MS Windows Server (OS)</b></p> <p><b>MS Windows 10 pro</b></p>	<p>\$1,500 per year</p> <p>\$199 per year</p>	<p><a href="https://www.microsoft.com/en-ie/windows-server/pricing">https://www.microsoft.com/en-ie/windows-server/pricing</a></p> <p><a href="https://www.microsoft.com/en-us/d/windows-10-pro/df77x4d43rkt?activetab=pivot:overviewtab">https://www.microsoft.com/en-us/d/windows-10-pro/df77x4d43rkt?activetab=pivot:overviewtab</a></p>
<p><b>Municode</b></p>	<p>\$350 per year</p>	<p><a href="https://www.municode.com/docume">https://www.municode.com/docume</a> <a href="#">nts</a></p>

<b>Arc GIS</b>	\$2,600 per year	<a href="https://www.esri.com/en-us/arcgis/products/arcgis-desktop-subscription">https://www.esri.com/en-us/arcgis/products/arcgis-desktop-subscription</a>
<b>AutoCAD Civil 3D</b>	\$2,315 per year	<a href="https://www.autodesk.com/products/civil-3d/overview#:~:text=The%20price%20of%20an%20annual,3D%20subscription%20is%20US%246%2C250%20">https://www.autodesk.com/products/civil-3d/overview#:~:text=The%20price%20of%20an%20annual,3D%20subscription%20is%20US%246%2C250%20</a>
<b>AutoCAD LT</b>	\$440 per year	<a href="https://www.autodesk.com/products/autocad-lt/overview">https://www.autodesk.com/products/autocad-lt/overview</a>
<b>Watchguard</b>	\$500 per year	<a href="https://www.cdw.com/product/watchguard-total-security-suite-subscription-license-renewal-upgrade-li/4242815">https://www.cdw.com/product/watchguard-total-security-suite-subscription-license-renewal-upgrade-li/4242815</a>
<b>Others (Accela, Black Bear, ProPhoenix, Hypercaster, Infoview)</b>	\$3,500	Estimation based on existing software prices
<b>Office Supplies</b>	\$2,000 per year	<a href="https://www.officedepot.com/a/products/563024/Office-Depot-Brand-EnviroCopy-Paper-Letter/">https://www.officedepot.com/a/products/563024/Office-Depot-Brand-EnviroCopy-Paper-Letter/</a>  <a href="https://www.walmart.com/ip/SKIL-CRAFT-NSN4936006-Employee-Start-up-Office-Kit-1-Kit/34911380?wmlspartner=wlpa&amp;selectedSellerId=0">https://www.walmart.com/ip/SKIL-CRAFT-NSN4936006-Employee-Start-up-Office-Kit-1-Kit/34911380?wmlspartner=wlpa&amp;selectedSellerId=0</a>

Note: Quoted prices might change with time depending on the vendor.