Budget and Reporting Information Technology Expenditures (BRITE)



Report to the Joint Legislative Oversight Committee on Information Technology

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Contents

Legislative Request	2
Introduction and Background	3
Legislative Questions	3
Appendix A: List of System Capabilities	9
Appendix B: Known Issues with BRITE	14

Legislative Request

"S.L. 2014-100, s. 7.18. The Office of the State Chief Information Officer shall complete implementation of a Budget and Reporting Information Technology Expenditures (BRITE) tool. By December 15, 2014, the State Chief Information Officer shall report to the Joint Legislative Oversight Committee on Information Technology and the Fiscal Research Division on the implementation of the BRITE tool. The report shall include the following:

(1) Initial and current implementation dates, with the reasons for any extensions.

(2) A time line of initial and current completion dates for each phase of the project.

(3) Every contract associated with the implementation, with the reason for each.

(4) An explanation of any changes to any initial contract, with the associated cost of each change.

(5) Initial and current budgets for the project.

(6) Initial and current total cost for the project, to include all associated contracts, as well as internal costs.

(7) Sources of funding for the implementation by fund code.

(8) Number of projected and actual hours to complete the effort, by phase, with the reasons for any overage.

(9) A list of system capabilities.

(10) Any capabilities required for budget development and management that are not currently available in BRITE, with an explanation of why the capability is not available, how the capability will be achieved, cost associated with adding the capability, and whether or not the capability was included in the initial contract with the BRITE vendor.

(11) Issues associated with implementation, with the cause and identified solution for each issue, as well as any additional costs resulting from the identified solution.

(12) Performance of each vendor during the project, with a list of actions taken in the event any vendor did not perform based on the terms specified in their contract.

(13) Potential for expansion of the BRITE tool to other agencies, with an explanation of why agencies would require the tool, what the associated costs would be, and any alternatives to the BRITE tool that are currently available within State agencies.

By December 15, 2014, the State Chief Information Officer shall report to the Joint Legislative Oversight Committee on Information Technology and the Fiscal Research Division on the status of the implementation within the Office of Information Technology Services and the potential for expansion of the BRITE tool to other State agencies."

Introduction and Background

The BRITE tool, also referred to as the Information Technology Financial Management (ITFM) system, is a Software-as-a-Service (SaaS) solution offered by VMWare to "provide transparency and control over the costs and quality of IT services enabling the SCIO to align IT with the business and to accelerate IT transformation."¹

Under previous management, in the fall of 2012, a competitive Request for Proposal (RFP) for an ITFM solution was canceled in favor of a sole source Request for Quote (RFQ). The BRITE tools was contracted for in December 2012 through a Request for Quote (RFQ) number ITS-007145 between Varrow, Inc., who is an authorized reseller for VMWare software, and the Office of Information Technology Services (OITS). The contract was for three years, with an optional fourth year, with a total potential (direct) cost to the State of \$962,234 over four years for the first phase of the project.

Phase I of the project was executed in the spring of 2013.

Current OITS management made a strategic decision to move away from the VMWare BRITE solution and issued notification of cancellation of the contract in a termination for convenience letter (a standard contract provision) from the State CIO to Varrow, Inc that was dated October 27, 2014.²

Legislative Questions

(1) Initial and current implementation dates, with the reasons for any extensions.

A project phase recommendation was proposed to segregate concrete deliverables and milestones into multiple phases to ensure value was clearly visible using the ITFM costing functionalities. The list below outlines the areas of focus for the multiple phases and due to the time constraint for Phase 1, the objectives were segregated into 1A and 1B.

Phase 1A – End of March 2013 deliverables

- Provide cost transparency and total cost of ownership for Client Computing, Hosting, CGIA, Network Services, IT Business Applications, Overhead.
- Provide cost allocations and calculations from the General Ledger to IT Services to the Customers.
- Provide a mechanism to manage the rate table of the services within the system.
- Provide data automation and loading.
- Provide a monthly Bill of IT for Federal, Local, State and Private customers with the services consumed (with BRITE feeding only computing services billing information).
- Provide a series of populated (applicable where there are data supported) out of the box reports and dashboards.

¹ www.vmware.com/products/vrealize-business

² All personnel directly involved with RFP, RFQ, and award/implementation of BRITE are no longer at OITS.

Phase 1B – End of June 2013 deliverables

- Provide the functionality to support Budget Execution and Budget Planning.
- Provide customized reporting for fixed vs. variable, agency details, unit cost vs. unit price, encumbrance.
- Provide a mechanism to manage the rate table of the services within the system.
- Provide automated calculations uploading for the AR data sources and variances against the charges to the Agencies.
- Provide the ability to eliminate the cost "loops" of double charging transactions to ITS.
- Provide a process to handle direct charges and pass through charges to the IT services and Agencies.
- Provide the ability for users to manage new and existing bill codes.
- Provide the ability for users to manage monthly credits.

Phase 2 – Not Scheduled

- Provide the integration of Network Services (including Telecom) into the model.
- Provide the ability to integrate with the CMDB and eliminate the manual data feeds for desktop services and servers.
- Provide a more robust set of customized reporting and dashboards for the business users and agencies.

(2) A time line of initial and current completion dates for each phase of the project.

Phases IA and IB were delivered as scheduled. Phase II was never started. System capabilities (requirements versus delivery) will be discussed in a later section.

(3) Every contract associated with the implementation, with the reason for each.

a. Company: Varrow, Inc.
ID: Executed RFQ ITS-007145
Topic: Software and Services to set up BRITE
Term: 1/1/2013 to 12/31/2015 (Base); 1/1/2016 to 12/31/2017 (Option)
Amount: \$737,234 (Base); \$225,000 (Option)
Amount spent: \$308,256 (licenses); \$183,233 (services)
Amount remaining to be spent: \$91,667 (services)

This contract was for Phase IA and IB of the BRITE solution, to include software licensing, set-up services, and training

b. Company: Varrow, Inc.
 ID: Amendment #1 to contract ITS-007145
 Topic: Additional Services to set up BRITE
 Term: 1/1/2013 to 12/31/2015
 Amount: \$7,900

Amount spent: \$0 This amendment was for additional set-up services that was not executed against.

- c. Company: Varrow, Inc.
 ID: Change Order No NC10127917-V2 (Amendment #2)
 Topic: Training and Support Hours for changes/fixes to system
 Term: June 26, 2014 until complete
 Amount: \$105,540 on a time-and-material basis
 Amount spent: \$0
 This amendment was for fixes to the original implementation but was not executed against.
 - d. Company: Randstad
 ID: OITS Supplemental Staffing Contract
 Topic: Business and Systems analysis support
 Amount: Time and Material
 Amount spent: \$79,893
 This contractor was brought on to help with requirements generation and capture.

(4) An explanation of any changes to any initial contract, with the associated cost of each change.

See item (3)b. above.

(5) Initial and current budgets for the project.

- Initial Budget for the project was \$2,375,623 with an anticipated end date of June 28, 2013.
- Estimate was revised during the project to \$1,058,480 with an anticipated end date of November 7, 2013.

(6) Initial and current total cost for the project, to include all associated contracts, as well as internal costs.

- Current budget is \$91,667 that will be owed on January 1, 2015 to Varrow for the third installment of initial installation. Total spent anticipated to be \$663,129
- Including internal costs, total cost is estimated at \$957,533

(7) Sources of funding for the implementation by fund code.

Fund	Center	Vendor	Amount Paid	Notes
7100	1020	JOYCE WALLACE	\$ 116.97	Consulting Services after Joyce's Departure from state gov't
7100	1027	RANDSTAD TECHNOLOGIES	\$ 79,893.00	Contract Help for Requirements
		VARROW INCORPORATED	\$491,489.34	Reseller for VMWare Software and Services
		Grand Total	\$571,499.31	Total May 2013 - June 2014)

(8) Number of projected and actual hours to complete the effort, by phase, with the reasons for any overage.

- a. Varrow/VMWare and OITS predicted an additional 1,084 hours to fix some (but not all) of the issues discussed in (11) below, at an anticipated external cost of \$105,540.
- b. Additionally, a Phase II effort would be required to:
 - i. Provide integration of Network Services (including Telecom) into the cost model
 - ii. Provide processes and reporting capabilities to handle over-charging of hardware refresh charges
 - iii. Provide the ability to integrate with the Configuration Management Database (CMDB) and eliminate the manual data feeds for desktop services and servers
 - iv. Provide a more robust set of customized reporting and dashboards for the business users and agencies
 - v. Provide a more mature and refined cost model using less assumptive (percentagebased) allocation methodologies but integrating more consumption data

The Phase II effort was quoted at \$133,695, external cost. Unknown internal cost.

(9) A list of system capabilities.

The list of anticipated system capabilities can be found in Appendix A.

(11) Issues associated with implementation, with the cause and identified solution for each issue, as well as any additional costs resulting from the identified solution³.

The list of issues associated with the current implementation of BRITE can be found in Appendix B. Some of these issues were proposed to be fixed in the service hours identified for Amendment 2 (at a cost of approximately \$105,000); however, there are other items for which there is no identified solution, no planned solution, or VMWare was planning to include the solution in a future release of BRITE. There is a question as to whether the VMWare system can be adapted to satisfy some of the issues OITS has raised to date.

The largest issue OITS ran into was the inability to invoice customers. The BRITE system itself generated invoices internal to the system; however, this information was not able to be downloaded, printed, or shared unless the customer had a VMWare license in order to access this information. This was cost prohibitive for OITS's ~3500 customers. At the rate negotiated in the base contract, to have 3500 customers' access the system would cost \$3.5M/year.

OITS attempted to resolve the invoice issue by collecting customer information and creating a "booklet" of charges. These had to be set up manually. Running the invoices caused system errors, and less than 5% of the invoices ran in the first attempt. Attempted fixes were both manual processes, creating hours of work for OITS staff, and they did not solve the problem. OITS has not been provided a solution to this problem to date.

Other issues noted included:

³ Question 11 is being answered ahead of question 10 to put the implementation issues ahead of the overall gaps

- a. Lack of processes and reporting capabilities to handle over-charging of hardware refresh charges.
- b. Rounding differences causing inaccurate billing
- c. Inability to see cost drivers, peak months, etc
- d. Error messages that caused billing staff to manually count down lines on a screen to identify correct reference
- e. Raw data manipulation requires 5 days of processing
- f. Allocations were set up in inflexible methodology drivers
- g. BRITE was set up to start with previous year actuals, not previous year budget
- h. Inability to promote a "what-if" scenario to be the production scenario
- i. CSV file downloads rearrange data views
- j. Inaccurate Dashboard display
- k. Lengthy batch processing times
- I. Tabbing from page-to-page is cumbersome. Headings don't carry forward

(10) Any capabilities required for budget development and management that are not currently available in BRITE, with an explanation of why the capability is not available, how the capability will be achieved, cost associated with adding the capability, and whether or not the capability was included in the initial contract with the BRITE vendor.

- a. Fluid and dynamic cost model. The requirements when the BRITE system was set up drove the cost model to be static. That methodology is not being used anymore in the rates transformation and development efforts that culminated in the rates that were delivered to the Office of State Budget and Management in the fall of 2014. A complete re-do of much of the coding inherent in BRITE would need to be done to support future processes
- b. Lack of flexibility on some future rates. Future rates models will need to be dynamic and flexible. The BRITE system was set up to include set non-standard rates and memoranda of understanding that had been established with agencies for services. This goes against the future vision of how rates will be developed and implemented and would require a great deal of work to fix.
- c. Integration of Network Services into the cost model and billing functions. Identified as a Phase II effort. Cost for Phase II was estimated at \$133,695; however, given the current invoice difficulty this functionality is questionable.
- d. Integration of Telecom into the cost model and billing functions. Identified as a Phase II effort. Cost for Phase II was estimated at \$133,695; however, given the current invoice difficulty this functionality is questionable.
- e. Ability to generate invoices for OITS's approximately 3,500 customers. Do not have a current solution at any cost. No attempts to correct have worked.
- f. Ability to generate invoices for customers who do not have a VMWare license. Do not have a current solution at any cost. No attempts to correct have worked.
- g. Integration with the Configuration Management Database. Currently this capability does not exist.

h. Customized reporting capability. A more robust dashboard and reporting capability would have been part of Phase II.

(12) Performance of each vendor during the project, with a list of actions taken in the event any vendor did not perform based on the terms specified in their contract.

Although the majority of personnel who were key to the BRITE implementation at OITS are no longer employed at OITS, there is no record of lack of performance by any vendor.

(13) Potential for expansion of the BRITE tool to other agencies, with an explanation of why agencies would require the tool, what the associated costs would be, and any alternatives to the BRITE tool that are currently available within State agencies.

OITS made a strategic decision to move away from the VMWare BRITE solution and not pay associated license costs for the 2015 calendar year. It is unknown whether the current implementation could be easily carried over to other agencies' business needs.

The 2015-2017 biennium rates, developed with the help of Grant Thornton, LLC (who won a competitive bid for the work), were calculated using an activity-based modeling tool developed by SAP, with the licenses owned by Grant Thornton, and not with the BRITE tool. Although the state does not have any current implementations of the SAP modeling tool, the state has an Enterprise License Agreement with SAP.

OITS is currently in the process of upgrading its instance of a SAS compute services billing tool. Because SAS has bundled software packages together to streamline offerings, the upgrade will include licenses for the SAS activity-based cost modeling tool should the state wish to implement the capability. The state also has an Enterprise License Agreement with SAS.

Over the next few months, OITS will continue to refine the 2015-2017 rates if cost savings can be achieved, as well as begin looking at refining the employed model in preparation for the 2017-2019 rates work. In conjunction with these efforts, OITS will be revisiting cost model requirements to ensure that future versions of BRITE (through the current implementation or that of a different vendor) will be integrated and flexible to support future business needs.

Appendix A: List of System Capabilities

Item	SOW	Capability	
4	Phase	Presides and the second total and a few methics for Olivet Computing Heating, COLA	
1	IA	Network Services ⁴ , IT Business Applications, Overhead	
2	1A	Allocation rules were automatically derived as expense and inventory data was loaded through	
		the model to calculate TCO and unit costs for the IT services.	
3	1A	Provides cost allocations and calculations from the General Ledger to IT Services to the Customers	
4	1A	Provides a monthly Bill of IT for Federal, Local, State and Private customers with the services consumed	
5	1A	Provides a series of populated out of the box reports and dashboards	
6	1A, 1B	Provides the business users the ability to have complete visibility and transparency into the costs of the IT services that are delivered to the Federal, State, Local and Private customers.	
7	1B	Provides customized reporting for fixed vs. variable, agency details, unit cost vs. unit price, encumbrance	
8	1A, 1B	IT Showback and Chargeback - "IT Monthly Statement" - a bill for all State of Carolina's Agencies that consume IT Services. This report contains monthly cost data as a single-line summary grouped together into Customer Groups dimension: Federal, Local, Private and State level. This dimension has been configured to provide the business the ability to view these groups at an Agency level summary and at the respective Account Code level (the Bill Code that relates to their Agency designated Fund and Cost Center).	
		The information provided in the IT Statement has been configured to limit the access of what the users will see based on their roles and domain. For example, a user with a "Finance Manager" role with a domain of "All Agencies" are able to view cost details for all the Agencies. On the other hand, a user with the "Agency" role and "Office of Administration Technology Services" domain are limited to see only information pertaining to that Agency in the statement.	
9	1B	Provides a mechanism to manage the rate table of the services within the system	
10	1B	Provides automated calculations uploading for the Accounts Receivable data sources and variances against the charges to the Agencies	
11	1 B	Provides the ability to eliminate the cost "loops" of double charging	
		transactions to ITS. ⁵	
12	1B	Provides a process to handle direct charges and pass through charges to the IT services and Agencies.	
13	1B	Provides the ability for users to manage new and existing bill codes.	
14	1B	Provides the ability for users to manage monthly credits	
15	2.0	Provide the integration of Network Services (including Telecom) into the cost model	
16	2.0	Provide processes and reporting capabilities to handle billing of hardware refresh charges	
17	2.0	Provide a more robust set of customized reporting and dashboards for the business users and agencies	
18	2.0	Provide a more mature and refined cost model using less assumptive (percentage based) allocation methodologies but integrating more consumption data	
19	1A, 1B	Provides the organization with a foundation that can leverage multiple data sources into a centralized and consolidated place allowing ad-hoc reporting and drill downs to support business impact decisions; thus minimizing resource time to analysis instead of data mining.	
20	1A	Provides data automation and loading	

⁴ Network Services was to be addressed in Phase 2

⁵ Due to complexity, decision was made to handle by a change in business process rather than through system configuration.



Item SOW Capability	
21 20 Provide the ability to	pintograte with the CMDP and eliminate the manual data feeds
for deskton services	and servers
22 1A Data matching	
Regarding data automation and	d loading, the system administrator is notified where data does
not match the required upload	adapter or "template". These rejected records are excluded
from calculations, cost models	and reports. This allows the system administrator to review and
pro-actively manage these situ	ations instead of having an un-monitored automated process.
231BProvides the functionality to su	upport the organization's Budget Execution and Budget Planning
processes.	
24 1B • Provides the function	ality to support Budget Execution and Budget Planning
25 1B Provides the capability to benc	hmark IT services with functional peers and industry standards.
26 1A & • Dashboards and Reports	
1B Dashboards define t	he visual layout of the user experience. They are comprised of
frame-lets, each disp	Daying a report; each dashboard displays different, customized
27 IA CIO Dasiboard	This Composite Penert shows a monthly view of the ten five
Accounts with the largest	vearly Cost (as a Bar Report) along with the Budget Trend (as a
Line Report) to illustrate t	he Cost vs. Budget alignment each month. Click any segment of a
Bar to open the Expense b	y Account Report.
YTD Cost vs. Budget - Th	is Gauge Report verifies the Cost with respect to the estimated
Budget whether it is Over	, Under, or within the Budget figures.
Observations - This Table	Report lists several insights into significant trends in Cost, Budget
and Unit Cost. Click a link	to open the corresponding Cost Object Analysis Dashboard.
Cost by IT Service - This	Table Report shows a finance status summary for selected IT
Services. Click a Service lin	nk to open the corresponding Cost Group or Cost Object Analysis
Dashboard.	
YID Cost Distribution of this Dis Chart illustrates	II Services - For the II Services in the Cost by II Service Report,
this Pie Chart inustrates	Life fedf-to-Date contribution (by percentage and amounts) of
Cost Group or Cost Object	Analysis Dashboard
Cost by IT's Consumers	- This Table Report displays a summary of the finance status
(Charges, Overruns, Head	count, etc.) for IT's Consumers. Click a Business Unit link to open
the corresponding IT State	ement Report.
YTD Charge Distribution	for IT Consumers - For the Business Units in the Cost by IT's
Consumers Report, this	Pie Report shows the Business Units and their corresponding
portion (by percentage ar	nd amount) of the Cost. Click a segment of the Pie Chart to open
the corresponding IT State	ement Report.
Unit Cost vs. Benchmark	- This Table Report presents an efficiency summary for IT Cost
Objects compared to pro	evious periods. Click a link to open the Cost Object Analysis
Dashboard. Below the Tal	Benert, the nonzontal Bar Graphs display a visual depiction of
Time Period and Unit Cos	t information
Spending by IT Infrastruct	ture - This Table Report displays a summary of the finance status
(Cost, Recovery, Forecast	, Overruns, etc.) for IT Infrastructure. In addition, any of the Cost
Observations, listed in the	Observations Table Report in this Dashboard, may appear for this
Report. Click a link to ope	n the corresponding Analysis Dashboard:
Additional Reports - This	Framelet includes links to the following Reports:
 Operational Me 	the This Table Depart should the following Methics.
 Expenses by Acceleration 	trics - This Table Report shows the following Metrics:
	count - This Table Report shows the list of Accounts and Amounts
for the Report P	count - This Table Report shows the following Metrics: count - This Table Report shows the list of Accounts and Amounts eriod.
28 1A Cost Group Analysis Dashboar The Cost Group Analysis Dashboar	count - This Table Report shows the following Metrics: count - This Table Report shows the list of Accounts and Amounts eriod. d oard includes Reports which analyze Cost and Budget Data on the

Item	SOW	Capability	
	FlidSe	• Cost vs. Budget Trend - This Composite Report shows a monthly view of the top five Cost	
		Objects with the largest yearly Cost (as a Bar Report) along with the Budget Trend (as a Line	
		Report) to illustrate the Cost of this Group vs. Budget alignment each month.	
		• YTD Cost vs. Budget - This Gauge Report verifies the Cost with respect to the estimated	
		Budget - whether it is Over, Under, or within the Budget figures.	
		Over/Under Recovery - This Composite Report tracks the YTD income and spend sums against the YTD Assumulated amounts	
		Cost Breakdown by Cost Object - This Table Report shows a finance status summary for the	
		Group's Cost Objects. Click a Cost Object link to open the corresponding Cost Object Cost	
		Analysis Dashboard.	
		• YTD Cost Breakdown by Cost Object - For the Cost Objects in the Cost Breakdown by Cost	
		Object Report, this Pie Chart illustrates the Year-to-Date contribution (by percentage) of	
		these Cost Objects to the total Cost. Click a segment of the Pie Chart to open the	
		corresponding Cost Object Analysis Dashboard.	
		 Cost Driver Summary - For the selected Cost Groups, this Table Report displays various Cost, Volume, and Unit Cost information. In this Papert, these Cost Objects are Cost Drivers. 	
		(entities that nav) for the Cost Group that is the focus of this Dashboard	
		• YTD Cost Driver Contribution - For the Cost Objects in the Cost Driver Summary Report,	
		this Pie Chart illustrates the Year-to-Date contribution (by percentage) of these Cost Objects	
		to the total Cost for the Cost Group that is the focus of this Dashboard.	
		• Cost Allocation Summary - For the selected Cost Groups and Cost Objects, this Table Report	
		displays various Cost, Volume, and Unit Cost information. In this Report, these Cost Objects	
		are Lost Targets for the Lost Group that is the focus of this Dashboard.	
		Report, this Pie Chart illustrates the Year-to-Date contribution (by percentage) of the Target	
		Cost Objects to the total Cost for the Cost Group that is the focus of this Dashboard.	
		• Cost Allocation Summary - For the selected Cost Objects, this Table Report displays various	
		Cost, Volume, and Unit Cost information. In this Report, these Cost Objects are Cost Targets	
		for the Cost Object that is the focus of this Dashboard.	
		 YID Cost Allocation Contribution - For the Cost Objects in the Cost Allocation Summa Report this Die Chart illustrates the Year to Data contribution (by percentage) of the 	
		Consumers to the total Cost for the Cost Object that is the focus of this Dashboard	
		Additional Reports - This Framelet includes links to the following Reports:	
		• Accumulated Cost vs. Budget - This Line Report shows the Cost and Budget	
		deviation trend over time.	
		• Top Budget Overrun Cost Group (Top 5) - This Bar Report shows significant Cost	
		Drivers for which Cost is over Budget.	
		 Over/Under Recovery - This Composite Report tracks the YTD income and spend 	
		Sums for each quarter against the YTD Accumulated amounts.	
		Report Period.	
29	1A	Roles consolidate permissions for various system activities. Permissions are defined in different	
		Roles and the Users are assigned to one or more Roles.	
		A User's Role determines the principal capabilities of the User within the State of North Carolina	
		and also determines the User's Home Page.	
		Administrator – Full access to all reports, cost models and designer. Ability to control	
		users and permissions. Executive – Permission to view executive reports and cost model, but not edit the cost	
		model or access designer.	
		Finance Manager – Full access to all reports and cost models	
		• Agency – Permission to view specific reports, no access to cost model or access	
		designer.	
		• General User – Permission to view specific reports, no access to cost model or access	
20		designer.	
30	1A	A Domain is a collection of nodes over which the User has a specific Role. It includes the system objects upon which actions can be applied. A Domain represents a "world view" for the User	

Item	SOW	Capability			
	Phase				
		For Phase 1A, State of North Carolina will create a domain for each Agency to be used by 'Agency' users.			
31	1A	A Data Adaptor is a composite of data from individual or multiple sources that provides input			
		data to the Designer. For this project all data sources will be Flat Files, either uploaded manually,			
		or automatically impo	orted from a Secure FTP site.		
32	1A	The File Upload repor	rt will be configured to provide	e a complete list of all files that are needed	
		to be uploaded in	to the system for this initial Pl	hase.	
		State of North Carolin	ha users may select and choose	e which files to upload directly from their	
			ing on the opload icon next to	the file Name.	
		All files files Tomplators	st be uploaded using a consiste	d por filo by:	
			electing a file by clicking on the	e Unload icon	
		0 S	window will open allowing the	e user to select a file in the history list	
		o Se	elect the file then press downl	oad	
33	1B	Web forms provide	a way of collecting data dire	ectly in to BRITE. This is primarily used for	
		collecting small and	infrequent amounts of data	a, but still provides the ability to use the	
		appropriate validation	n/pre-defined selections to en	sure consistent inputting.	
34	1B	Web Form: The Mana	age Bill Codes process's purpos	se is to provide the State of North Carolina	
		the ability to manage	new and existing bill codes as	sociated to the Agencies by incorporating	
		the usage of the appl	ication's web form. The respe	ctive user or users with proper permissions	
		and authority to mak	e the change will have access t	to this web form. A web form will be	
		table below	sed through the reporting inte	errace with the following fields listed in the	
		Field Names	Description	Commonts	
			Agency Name	This field will be manual input	
		Bill Code	Unique code associated to	This field will be manual input	
			each Agency		
		Department	Department name relative	This field will be manual input	
			to the Agency		
		User ID	Name of the user logged	Auto populated by the system. This field	
			into the system	will show up on the report but not the	
				web form.	
		Last Updated By	Time stamp of the change	Auto populated by the system. This field	
			made	will show up on the report but not the	
			less will be configured to ensu	web form.	
		through an approva	l before it gets used in the	e cost model calculations. All inputs will	
		automatically be flag	ged with "Waiting for Appro	val" and are managed within a report that	
		allows the approver v	with proper permissions to "Ap	prove" or "Reject" all new bill codes that are	
		entered. If a bill code	e is rejected, it will reside in a F	Rejected Bill Code report that is scheduled to	
		be automatically distributed at 9am local time to the respective group responsible for			
		maintaining the bill co	odes.		
35	1B	Web Form: The Mana	age Credits process's purpose i	is to provide the State of North Carolina the	
		ability to manage cre	dits to the Agency's Bill of IT.	The respective user or users with proper	
		permissions and auth	ority to make the change will	have access to this web form. The	
		The credit will show u	in as an additional line item or	the Bill of IT under "Credit" A web form	
		The creat will snow up as an additional line item on the Bill of II under "Credit". A web form will be configured and accessed through the reporting interface with the following fields lists			
		in the table below.			
		Field Names	Description	Comments	
		Agency	Agency Name	This field will be a dimension menu for	
			-	users to select	
		Bill Code	Unique code associated to	This field will be a dimension menu for	
			each Agency	users to select	

Item	SOW Phase	Capability		
		Month	Month the credit belongs to	This field will be manual input by selecting the month from a calendar
		Credit Amount	Dollar amount of the credit	This field will be manual input in dollars
		User ID	Name of the user logged into the system	Auto populated by the system. This field will show up on the report but not the web form.
		Last Updated By	Time stamp of the change made	Auto populated by the system. This field will show up on the report but not the web form.
		An approval process a through an approval automatically be flag allows the approver v entered. If a credit is automatically distributhe credits.	also will be configured to ensu before it gets used in the cost ged with "Waiting for Approva with proper permissions to "Ap s rejected, it will reside in a Re uted at 9am local time to the r	re that all inputs through the webform goes model calculations. All inputs will I" and are managed within a report that oprove" or "Reject" all credits that are jected Credits report that is scheduled to be espective group responsible for maintaining

Appendix B: Known Issues with BRITE

No	VMWare Support Request #	
1	<u>14444828002</u>	The Custom IT Statements Dashboard is not displaying data properly in the ITS Statement Summary report. The Custom IT Statements Dashboard is one of the Out of the Box reports provided by the vendor to view monthly and yearly charges by ITS fund.
	Cause	The Cost Model was missing some allocation settings. There are three cost groups that didn't have any settings and allocations were 0%. OITS staff did not make any changes to the allocation settings. This has happened in the past without explanation.
	Solution	A VMWare engineer would need to identify how the allocation settings in the cost model are changing without input from OITS staff.
2	<u>14431746501</u>	The Cost Model was missing some allocation settings. There are three cost groups that didn't have any settings and allocations were 0%. OITS staff did not make any changes to the allocation settings. This has happened in the past without explanation.
	Cause	As designed by the vendor.
	Solution	VMWare does not have a solution for this issue.
3	14444593602 14477426705 14540770610 14431744801 14431706401 14468928204 14445131102 14548675510 14431683601 14431693801	We have had multiple occasions where the Cycle has not completed or does not complete in the 11 hour maintenance window that we currently have scheduled. The cost calculations and reports are not updated if the Cycle does not complete. The data that customers see as they log in will not be accurate.
	Cause	There may be multiple causes for this. We have experienced database locks, database maintenance, and timeout issues in the application. VMWare appears to be performing maintenance during our Full Cycle window. This causes timeouts during the Cycle.
	Solution	VMWare needs to coordinate their maintenance with our Development and Production overnight Cycles.
4	<u>14431639401</u> <u>14431715101</u> <u>14431647301</u>	Unable to export packages from Development to Production. If we are unable to export packages we have to duplicate all changes made in Development in Production.
	Cause	Unknown
	Solution	Unknown

5	<u>14454263403</u> 14485010706	We are experiencing multiple issues with the allocations in the cost model.
	<u>13415349012</u> <u>14444817302</u> 14444817302	1. There are times when allocations change without anybody at OITS having made changes.
	<u>14431747301</u> 14483148205	2. OITS staff has not been trained on how to make allocation changes.
	14431755501	3. VMWare did not produce documentation regarding how the allocations were initially set up and/or how to add, modify, or delete allocations.
	Cause	VMWare did not fully document how things are allocated in the cost model, how we can modify allocations in the cost model, and/or how to add new allocations to the cost model.
	Solution	VMWare needs to provide complete documentation relating to the cost model and allocation strategies. VMWare's response to ticket 14444817302:
		Sales and PSO are engaged and NC were proposed a week of Onsite time from PSO for configuration review and knowledge transfer and then ongoing remote support from PSO to assist in enabling your team, it seems like you CIO has agreed to this proposal and it is being prepared.
		The above steps will allow you to also address the issue raised in this case and resolve the allocation settings which are the cause for the '0's' in the dashboard reports and cost groups.
		Regarding the time out you receive when opening the 'edit allocations', please create a new case for this issue and it will be handled separately.
6	<u>14431734501</u> <u>14517522008</u> <u>14431668901</u> <u>14510166007</u>	Invoice emails scheduled as distributions are not being sent by the system. The distribution emails are scheduled but are not sent. Our customers will not receive their invoices on a consistent basis.
	Cause	The VMWare system is not capable of handling large batches of distributions at one time.
	Solution	We have approximately 1,500 CS customers and the invoice distributions need to be scheduled in batches of about 5 per distribution.
7	<u>14460471804</u> 14469020404	We are unable to promote a What-If cost model to a "regular" cost model?
	<u></u>	Specifically, we would like to know if we can "promote" the Plan B What-If cost model to become the State of NC - Anticipated Budget cost model. Without being able to promote a What-If cost model, a new cost model will need to be recreated.
	Cause	Inability to promote What-If cost models is as designed.
	Solution	Currently the application does not support promoting a What-if Model to a Cost Model. VMWare suggests putting in an enhancement request using the following form: https://www.vmware.com/company/contact/contactus.html?department=pro d_request

8 <u>1442</u>	<u>16190001</u>	When exporting reports to Excel, negative numbers are converted from "Currency" to "General" and contained in quotes. Our Financial staff is having to manually edit each Excel cell with a negative value so they can perform calculations. The inability to accurately export reports to Excel causes calculation issues and requires analysts to scrutinize each spreadsheet for negative numbers that do not export properly.
Caus	Se	The current system does not allow exporting negative numbers to an Excel spreadsheet.
Solu	tion	VMWare suggests putting in an enhancement request using the following form: https://www.vmware.com/company/contact/contactus.html?department=pro d_request
9 <u>1443</u>	9 <u>7633002</u>	Invoice booklets that are created by one Administrator are only accessible by the Administrator who created them. Each booklet needs to be created and then save as a "Favorite Report". The inability for all Administrators to access and modify invoice booklets creates a bottleneck.
Caus	se	There are multiple steps that need to be taken in order to make the reports accessible by all Administrators.
Solu	tion	There are two places that you can create booklets. The first is in My Reports in Reports > Favorite Reports which is intended for development. If you add a booklet from here you will be adding it to the My Reports section and only you can see it. The other is in Published Reports in Reports > Report Management and is intended for collaboration. If you add a booklet from here you will be adding it to the Published Reports section and others can see it depending on the permissions given to it. You can take a booklet in My Reports and publish it which would save it in Published Reports and you can also save a published report to my reports but they won't be associated with each other after published/saved. My Suggestion would be to create a Role or User Group for the users that are creating the booklets and they can create them in My Reports and publish them when ready or they can create them in Published reports making sure that the Role or Group is added to the permissions of the report so that everyone can see them.
10 <u>1443</u>	<u>1708701</u>	A customer reported an unexpected finding/result logging into Brite. The Digital Fuel site appears to not work with IE 10 unless the site is placed in Compatibility View. This may be problematic moving forward, as IE 11 is in Beta. Once IE 11 is released as production, IE 10 will be the "N-1" version for Windows 7 and Windows 8. Windows 8.1 does not support IE 10 and will be the most likely platform for current Windows 8 users shortly; it may be prudent to touch base with VMWare to ensure that the apparent behavior is expected and what implications/concerns Windows 8.1 and IE 11 might present
Caus	se	The current application does not support IE 10. IE must be placed in compatibility mode. This is not a major issue but the question remains, what will happen when OITS moves to IE 11.
Solu	tion	Support of IE 10 will be included in ITBM 8.0 that is set to be released later this year.
11 <u>1443</u>	<u>1647101</u>	The Volume and Rate Report is not displaying multiple pages of information. The initial page displays properly but subsequent pages are not when you click on the next page arrow. The report will also not let you scroll down through the page and the only way to get the display to work

		properly is to minimize the header of the report. In order to view the next page you have to show the report header, etc
	Cause	Known issue by VMWare
	Solution	VMWare created a defect for Freeze Table Headers option generates bad second page on a table report. The solution is scheduled for a Future Release
12	<u>14451881403</u>	Using the adjustment form in the SoNC->Hierarchies->Customers->Bill Code Master List, I changed a customer name effective 2/2014. There were no other changes to the customer. This removed the previous customer name from the Invoices prior to 2/2014 and changed them to the new customer name. We need the name change to be effective going forward and to not change any previous invoice data. Why did the effective date seem to be ignored? I would think that we should be able to reference the old customer name with previous invoices and the new customer name going forward.
	Cause:	Inability to make any change to existing bill codes without effecting historical data.
	Solution:	These adapters were developed to change historical data. The adapters would have to be re-written to accommodate changing existing data.