AGENDA REQUEST FORM
THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

MEETING DATE	2019-11-06 10:05 - School Board Operational Meeting	**Special Order Request** ◯ Yes ● No
ITEM No.: **EE-21.**	**AGENDA ITEM** ITEMS	**Time**
	CATEGORY EE. OFFICE OF STRATEGY & OPERATIONS	
	DEPARTMENT Procurement & Warehousing Services	**Open Agenda** ● Yes ◯ No

TITLE:

Recommendation for Additional Spending Authority - 58-065E - Cloud Hosting Provider for SAP

REQUESTED ACTION:

Approve the recommendation for additional spending authority. Contract Term: September 19, 2017 through September 18, 2020, 3 Years with an option for two (2) additional one (1) year renewal periods; User Department: Information & Technology (I&T); Additional Requested Amount: $1,200,000; New Award Amount: $3,750,755; Awarded Vendor(s): VirtuStream, Inc.; Small/Minority/Women Business Enterprise Vendor(s): None.

SUMMARY EXPLANATION AND BACKGROUND:

This request is to approve additional spending authority for the Cloud Hosting solution supporting the District's SAP system. The additional spending authority will allow the District to continue utilizing the hosting services for the remainder of the term.

SCHOOL BOARD GOALS:

◯ **Goal 1: High Quality Instruction**   ◯ **Goal 2: Safe & Supportive Environment**   ● **Goal 3: Effective Communication**

FINANCIAL IMPACT:

The estimated financial impact to the District will be $1,200,000. The contract award was for $2,550,755. The request is to increase the spending authority by $1,200,000, bringing the new contract value to $3,750,755. The funding source will come from I&T's operating budget. The financial impact amount represents an estimated contract value; however, the amount authorized will not exceed the estimated contract award amount.

EXHIBITS: (List)

(1) Executive Summary (2) Financial Analysis Worksheet (3) Original Executed Documents

BOARD ACTION: **APPROVED** (For Official School Board Records Office Only)	SOURCE OF ADDITIONAL INFORMATION:	
	Name: Phillip H. Dunn	Phone: 754-321-2607
	Name: Mary C. Coker	Phone: 754-321-0501

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA
Senior Leader & Title

Maurice L. Woods - Chief Strategy & Operations Officer

Approved In Open Board Meeting On: **NOV 0 6 2019**

By: _Heather P. Brinkworth_
School Board Chair

Signature

Maurice Woods
10/21/2019, 1:06:32 PM
Electronic Signature

Form #4189 Revised 07/25/2019
RWR/ MLW/MCC/PHD:hdc

AGENDA REQUEST FORM
THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

MEETING DATE 2017-09-19 09:30 - Special Meeting

Special Order Request
○ Yes ● No

ITEM No.: 1.

AGENDA ITEM SUPERINTENDENT'S RECOMMENDATION

Time

CATEGORY Superintendent's Recommendation

DEPARTMENT Procurement & Warehousing Services

Open Agenda
● Yes ○ No

TITLE:
Direct Negotiation Recommendation of $500,000 or Greater - 58-065E Cloud Hosting Provider for SAP

REQUESTED ACTION:
Approve the above Direct Negotiation Agreement for the above agreement. Contract Term: September 13, 2017 through September 12, 2020, 3 Years; User Department: Information & Technology; Award Amount:: $2,550,755; Awarded Vendor(s): VirtuStream, Inc.; Small/Minority/Women Business Enterprise Vendor(s): None. **Award Amount: Not to exceed $2,550,755**

SUMMARY EXPLANATION AND BACKGROUND:
This request is to approve the recommendation to award the Direct Negotiation for 58-065E – Cloud Hosting Provider for SAP between VirtuStream, Inc. and The School Board of Broward County, Florida. The term of the award is for three (3) years from September 13, 2017 through September 12, 2020.
This Agreement has been reviewed and approved as to form and legal content by the Office of the General Counsel.

SCHOOL BOARD GOALS:
○ Goal 1: High Quality Instruction   ● Goal 2: Continuous Improvement   ○ Goal 3: Effective Communication

FINANCIAL IMPACT:
The estimated financial impact to the District will be $2,550,755. The funding source will come from Information & Technology's capital budget. The financial impact represents an estimated contract value; however, the amount authorized will not exceed the contract award amount.

EXHIBITS: (List)
(1) Executive Summary (2) Agreement

BOARD ACTION:
APPROVED AS AMENDED
(See Amendment Attached)
(For Official School Board Records Office Only)

SOURCE OF ADDITIONAL INFORMATION:

Name: Tony Hunter | Phone: 754-321-0400

Name: Mary C. Coker | Phone: 754-321-0501

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA
Senior Leader & Title
Maurice L. Woods - Chief Strategy & Operations Officer

Approved In Open Board Meeting On: SEP 1 9 2017

By: _School Board Chair_

Signature
Maurice Woods
9/5/2017, 3:33:07 PM
Electronic Signature

Item 1. Amendment September 19, 2017 Special Meeting - Contracts

Motion to Amend   (Carried)
Motion was made by Ms. Korn, seconded by Mrs. Rupert and carried, to amend the
Statement of Work on page 3, 3-C. Professional Services, changing the dates in Phase I to
read, "...executed by SBBC by September ~~15~~ 19, 2017...." and "...shall be made available to
SBBC no later than ~~September 29,~~ October 5, 2017."

Second Motion to Amend (Carried)
Motion was made by Ms. Korn, seconded by Mrs. Rich Levinson and carried, to amend
the Requested Action taken to read, "...Award Amount: Not to exceed $2,550,755;...."

EXECUTIVE SUMMARY

Direct Negotiation Recommendation of $500,000 or Greater
58-065E – Cloud Hosting Provider for SAP

This request is to approve the recommendation to award the Direct Negotiation for 58-065E – Cloud Hosting Provider for SAP between VirtuStream, Inc. (VirtuStream) and The School Board of Broward County, Florida, (SBBC). The term of the award is for three (3) years from September 13, 2017 through September 12, 2020.

This Direct Negotiation was performed in accordance with Purchasing Policy 3320, Part VI (C)(5)(c), and Section 6A-1.012(14), F.A.C., permit the acquisitions of information technology as defined in Section 282.0041(14), Florida Statutes, by direct negotiation.

Currently, SBBC utilizes SAP Enterprise Resource Planning (ERP) system to perform the key business functions of the District (Financial Accounting and Controlling, Human Resource Management, and Material Management). The upgrade and migration of this system are needed because SBBC must decommission the existing IBM mainframe environment and retire all mainframe installed applications by June 30, 2018, due to the expiration of system licenses and to avoid a penalty of $2.5M in mainframe license renewals.

VirtuStream cloud hosting services are being recommended to replace the hosting currently being provided on the district's mainframe system. VirtuStream cloud hosting services are targeted primarily at mission-critical complex enterprise applications, such as ERP suites from SAP. It is differentiated by its application-specific expertise; a platform purpose-built for the availability, performance, security, governance, and service level agreement requirements.

This request is for hosting services for all applications related to SAP Enterprise Central Component (ECC) and Business Warehouse Reporting (BW) in the cloud.

Financial Impact:

This request is to approve the spending authority for the three (3) years of licensing of the VirtuStream, as follows:

VirtuStream Cloud Hosting Services - three (3) years   **$2,550,755**

Details of the spend are illustrated below:

	Fiscal Year	Project Year	Month	Fixed	Managed Services	VM/Baseline
Professional Services	2017	1	September	$ 65,000.00	$ -	$ -
One Time Setup Charge	2017	1	September	$ 75,759.74	$ -	$ -
BW-SB	2017	1	September	$ 24,912.62	$ 1,426.84	$ 6,961
BW-SB	2017	1	October	$ 24,912.62	$ 1,426.84	$ 6,961
BW-Dev	2017	1	November	$ 24,912.62	$ 2,853.68	$ 12,320
BW-Dev	2017	1	December	$ 24,912.62	$ 2,853.68	$ 12,320
BW-QA	2017	1	January	$ 24,912.62	$ 4,745.81	$ 22,367
BW-Prod: Steady State	2017	1	February	$ 24,912.62	$ 7,103.23	$ 28,263
ECC-SB	2017	1	March	$ 24,912.62	$ 10,116.83	$ 32,981
ECC-SB	2017	1	April	$ 24,912.62	$ 10,116.83	$ 32,981
ECC-Dev	2017	1	May	$ 24,912.62	$ 12,802.34	$ 38,321
ECC-Dev	2017	1	June	$ 24,912.62	$ 12,802.34	$ 38,321
ECC-QA	2018	1	July	$ 24,912.62	$ 16,418.43	$ 40,721
ECC-Prod: Steady State	2018	1	August	$ 24,912.62	$ 21,895.68	$ 43,689
ECC-Prod: Steady State	2018	2	September	$ 24,913.62	$ 21,895.68	$ 43,689
ECC-Prod: Steady State	2018	2	October	$ 24,914.62	$ 21,895.68	$ 43,689
ECC-Prod: Steady State	2018	2	November	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2018	2	December	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2018	2	January	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2018	2	February	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2018	2	March	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2018	2	April	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2018	2	May	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2018	2	June	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2019	2	July	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2019	2	August	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2019	2	September	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2019	3	October	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2019	3	November	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2019	3	December	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2019	3	January	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2019	3	February	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2019	3	March	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2019	3	April	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2019	3	May	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2019	3	June	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2020	3	July	$ 24,914.62	$ -	$ 43,689
ECC-Prod: Steady State	2020	3	August	$ 24,914.62	$ -	$ 43,689
Total				$ 1,037,661.06	$ 148,353.89	$ 1,364,740
					Grand Total	$ 2,550,755

STATEMENT OF WORK #SBBC-20170818

This Statement of Work #SBBC-20170818 ("**SOW**") is made and entered into this ⏤ day of ⏤, 2017 (the "**Effective Date**"), by and between The School Board of Broward County, Florida ("**SBBC**") with offices located at 600 Southeast 3rd Avenue, Fort Lauderdale, Florida 33301 and Virtustream, Inc. ("**Virtustream**") with offices located at 4800 Montgomery Lane, Suite 1100, Bethesda, Maryland 20814.

WHEREAS, SBBC and Virtustream desire to enter into a Master Services Agreement, attached hereto as Exhibit 4, presented during the same Board meeting as this SOW (the "**Agreement**") and SBBC desires to retain Virtustream to provide the Services set out herein, subject to the terms of the Agreement.

WHEREAS, this SOW provides for the cloud platform hosting services for the District's licensed SAP Enterprise Resource Planning (ERP) applications and database systems.

WHEREAS, this SOW provides professional services for the installation of associated applications, and managed services.

WHEREAS, this SOW provides Managed Services to support the SAP system upgrade and migration from the existing IBM mainframe system to cloud platform hosting services.

WHEREAS, SBBC Policy 3320, Part VI (C)(5)(c), and Section 6A-1.012(14), F.A.C., permit the acquisitions of information technology as defined in Section 282.0041(14), Florida Statutes, by direct negotiation

NOW THEREFORE, in consideration of the promises set out herein, the parties hereby agree as follows:

1.   OVERVIEW OF SERVICES

A.   *General*

Virtustream shall: (A) provide the Professional Services; (B) deploy and provide the Cloud Platform, set out in Exhibit 1, for SBBC; and (C) provide the Application Managed Services, as further described in the Cloud Service Descriptions and this SOW. The responsibility of the parties during the Services are set out in Exhibit 2 for Professional Services and in the Cloud Services Descriptions.

B.   *Territory*

The Cloud Services shall be provided at the following data centers:

Primary Data Center   -   Sterling, VA (USDC4) – (Century Link data center - Tier 3 Security)
Secondary Data Center   -   Las Vegas, NV (USDC3) – (SWITCH data center - Tier 4 Security)

SBBC shall access the Cloud Platform and store and submit SBBC Material from SBBC's facilities located in Broward County, Florida.

The data centers may be transitioned to another location upon the prior written consent of SBBC, which consent shall not be unreasonably delayed, denied or withheld.

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2. DESCRIPTION OF SERVICES

A. *Professional Services*

The Professional Services shall consist of deploying SBBC's applications and solutions in scope, as identified in this SOW, to the Cloud Platform. Virtustream shall also implement during performance of the Professional Services tools required for and used by Virtustream for steady-state of the Cloud Platform. The Professional Services shall be performed at Virtustream's facilities, unless otherwise required by Virtustream to perform the Professional Services.

B. *Cloud Services*

The Cloud Services shall consist of deploying the Cloud Platform components and the Application Managed Services set out in Exhibit 1 of this SOW, and shall be provided in accordance with the applicable Cloud Services Descriptions and this SOW. SBBC is entitled to the utilization of the number of μVMs purchased in accordance with Section 7 below, and by up to the alternative quantity set out in Exhibit 1 for all other components of the Cloud Platform.

C. *Data Protection*

Each party shall comply with the requirements of the Data Protection Schedule to the extent such requirements are applicable to a party and the Services.

D. *SLA*

The SLAs set out in Exhibit 4 shall apply to the Cloud Services.

3. IMPLEMENTATION OF SERVICES

A. *General*

Virtustream shall, in accordance with this SOW: (1) provide Project Planning and Preparation; (2) provide the Cloud Services and Professional Services, if applicable, as set out herein; (3) implement services required for steady state support of the Cloud Services; and (4) transition support of systems to steady state support teams.

B. *Project Planning and Preparation*

1. Project Planning

Virtustream and SBBC shall develop a project plan for the Professional Services within two (2) weeks following the Effective Date and a detailed project plan within four (4) weeks following the Effective Date. Virtustream and SBBC will review and confirm the parameters and architecture for the specified environments on the Cloud Platform, including:
- A high-level description of the tasks required for Cloud Services and Onboarding Professional Services, if applicable, with proposed milestones and estimated timelines.
- Server specifications, as applicable, including CPU, memory, storage, backup, disaster recovery options).
- Network design.
- Deployment approach.
- Coordinate teams communications
- Notify the client with a formal notification when the IaaS is ready

2. Project Preparation

Technical, logistics and administrative activities in preparation for the migration of applications. These tasks may include, but are not limited to:

2

- Team member assignments.
- Identification of SBBC technical naming conventions, network ranges, application preferences (if applicable).
- Coordination of connectivity between SBBC and Virtustream networks.
- Identification and download of appropriate software.

C. *Professional Services*

The Professional Services shall be executed in the following phases for the BW and ECC applications (each a "Phase"):

Phase 1: Deployment of all in-scope sandbox applications or systems.
Subject to the SOW being executed by SBBC by September 1~~5~~9, 2017 and contingent upon SBBC providing any information reasonably required by Virtustream, the sandbox environment for the BW application shall be made available to SBBC no later than ~~September 29~~ October 5, 2017.

Phase 2: Deployment of all in-scope development applications or systems.

Phase 3: Deployment of all in-scope quality assurance applications or systems.

Phase 4: Deployment of all in-scope production applications or systems.

Phase 5: Deployment of steady-state services (backups, monitoring) and transition to steady-state support of the Cloud Services; which phase may start concurrently with Phase 1.

D. *Cloud Services*

Virtustream shall, as set out in Exhibit 1, provision and build the VMs for the Cloud Platform to be deployed for the in-scope applications and solutions identified in this SOW and provide the relevant components of the Cloud Platform. In addition, Virtustream shall, as set out in Exhibit 1 configure and execute initial backups and provide ongoing support of the in-scope operating system, databases and applicable applications. Upon implementation of each phase, Virtustream shall, as applicable and as set out in Exhibit 1, provide the Application Managed Services for the management of the Cloud Platform. Certain components of the Cloud Platform may be provided concurrently with the Professional Services.

E. *Acceptance – Professional Services*

Upon completion of each Phase, identified above, SBBC shall have up to five (5) business days to notify Virtustream in writing if the applicable Phase does not include the technical requirements and business rules agreed to by the parties in the project plan and this SOW (the "**Rejection Notice**") or provide Virtustream with a statement of acceptance in the form set out in Exhibit 5. The Rejection Notice shall specify in reasonable detail the non-conformities and requirements for acceptance based on the project plan and this SOW. Upon receipt of the Rejection Notice, Virtustream shall have five (5) business days or an additional period of time reasonably agreed to by the parties to correct any alleged nonconformities or, if applicable, to notify SBBC that the alleged non-conformities are beyond the scope of the Professional Services set out in this SOW. Upon correction of any nonconformities, SBBC shall have up to three (3) additional business days to accept the applicable Phase, subject to the acceptance procedures set out herein. If SBBC fails to timely notify Virtustream of any non-conformities, the Phase shall be deemed accepted. During the acceptance of any Phase, including the correction of any non-conformities, Virtustream may continue to concurrently perform the Professional Services for the other Phases.

4. SYSTEMS IN SCOPE

The following SBBC systems are in scope for the Cloud Services:

#	Phase Name	Server Name	Application Name	Landscape	Usage Type	OS Version	DB License Hana Appliance
1	Production	SAPXBPA	BI, BW	Production	Production	SUSE 11 (HANA)	Virtual HANA
2	Production	BI Central Services	BI, BW	Production	Production	Windows 2012	## NONE ##
3	Production	SAPXBPB	BI, BW	Production	Production	Windows 2012	## NONE ##
4	Production	SAPXBPC	BI, BW	Production	Production	Windows 2012	## NONE ##
5	Sandbox	SAPXBSA	BI, BW	Sandbox	Non-Production	SUSE 11 (HANA)	Virtual HANA
6	Sandbox	BI Central Services App Server	BI, BW	Sandbox	Non-Production	Windows 2012	## NONE ##
7	Production	SAPXEPA	ECC	Production	Production	SUSE 11 (HANA)	Virtual HANA
8	Production	ECC Central Services	ECC	Production	Production	Windows 2012	## NONE ##

9	Production	SAPXEPB	ECC	Production	Production	Windows 2012	## NONE ##
10	Production	SAPXEPC	ECC	Production	Production	Windows 2012	## NONE ##
11	Production	SAPXEPD	ECC	Production	Production	Windows 2012	## NONE ##
12	Production	SAPXEPE	ECC	Production	Production	Windows 2012	## NONE ##
13	Production	SAPXEPF	ECC	Production	Production	Windows 2012	## NONE ##
14	Sandbox	SAPXESA	ECC	Sandbox	Non-Production	SUSE 11 (HANA)	Virtual HANA
15	Sandbox	ECC Central Services App Server	ECC	Sandbox	Non-Production	Windows 2012	## NONE ##
16	Production	SAPXPPA	Enterprise Portal	Production	Production	Windows 2012	SQL Server (Cust)
17	Production	SAPXPPB	Enterprise Portal	Production	Production	Windows 2012	## NONE ##
18	Production	SAPXPPC	Enterprise Portal	Production	Production	Windows 2012	## NONE ##
19	Production	SAPXPPD	Enterprise Portal	Production	Production	Windows 2012	## NONE ##
20	Sandbox	SAPXPSA	Enterprise Portal	Sandbox	Non-Production	Windows 2012	SQL Server (Cust)
21	Sandbox	SAPXPSB	Enterprise Portal	Sandbox	Non-Production	Windows 2012	## NONE ##
22	Production	SAPXSLA	SolMan - Java	Production	Production	Windows 2012	SQL Server (Cust)
23	Production	SAPXWIA	Web dispatcher	Production	Production	Windows 2008	## NONE ##
24	Production	SAPXWIB	Web dispatcher	Production	Production	Windows 2008	## NONE ##
25	QA	SAPXWZA	Web dispatcher	QA	Non-Production	Windows 2008	## NONE ##
26	QA	SAPXWZB	Web dispatcher	QA	Non-Production	Windows 2008	## NONE ##
27	Production	SAPXXPA	PI	Production	Production	Windows 2008	## NONE ##
28	Production	SAPXFPA	Fiori	Production	Production	Windows 2008	## NONE ##
29	Production	SAPXFPA	Fiori	Production	Production	Windows 2008	## NONE ##
30	Production	SAPXFSA	Fiori	Production	Production	Windows 2008	## NONE ##
31	Dev	SAPXBDA	BW	Dev	Non-Production	SUSE 11 (HANA)	Virtual HANA
32	Dev	BI Central Services App Server	BW	Dev	Non-Production	Windows 2012	## NONE ##
33	QA	SAPXBQA	BW	QA	Non-Production	SUSE 11 (HANA)	Virtual HANA
34	QA	BI Central Services App Server	BW	QA	Non-Production	Windows 2012	## NONE ##
35	QA	SAPXBQB	BW	QA	Non-Production	Windows 2012	## NONE ##
36	Dev	SAPXEDA	ECC	Dev	Non-Production	SUSE 11 (HANA)	Virtual HANA
37	Dev	ECC Central Services App Server	ECC	Dev	Non-Production	Windows 2012	## NONE ##
38	QA	SAPXEQA	ECC	QA	Non-Production	SUSE 11 (HANA)	Virtual HANA
39	QA	ECC Central Services App Server	ECC	QA	Non-Production	Windows 2012	## NONE ##
40	QA	SAPXEQB	ECC	QA	Non-Production	Windows 2012	## NONE ##
41	QA	SAPXEQC	ECC	QA	Non-Production	Windows 2012	## NONE ##
42	Dev	SAPXPDA	Enterprise Portal	Dev	Non-Production	Windows 2012	SQL Server (Cust)
43	Dev	SAPXPDB	Enterprise Portal	Dev	Non-Production	Windows 2012	## NONE ##
44	QA	SAPXPQA	Enterprise Portal	QA	Non-Production	Windows 2012	SQL Server (Cust)
45	QA	SAPXPQB	Enterprise Portal	QA	Non-Production	Windows 2012	## NONE ##
46	Dev	SAPXXDA	PI	Dev	Non-Production	Windows 2012	## NONE ##
47	QA	SAPXXQA	PI	QA	Non-Production	Windows 2012	## NONE ##
48	Production	SAPXFDA	Fiori	Production	Production	Windows 2008	## NONE ##
49	Production	SAPXFQA	Fiori	Production	Production	Windows 2008	## NONE ##
50	Production	HRMSDEV	Legacy SAP	Production	Production	Windows 2012	## NONE ##
51	Production	HRMSPRD	Legacy SAP	Production	Production	Windows 2012	## NONE ##
52	Production	SAPDATA1	FileShare	Production	Production	Windows 2012	## NONE ##
53	Production	TREX	TREX	Production	Production	Windows 2012	SQL Server (Cust)
54	Production	SAPXIPA1	OpenText	Production	Production	Windows 2012	SQL Server (Cust)

The following systems are in scope for the Professional Services:

				Application					
Item	System description	Landscape	Product Description	Type	Deployment Approach	Product Version and SP Level	OS Type/Version	Database Type/Version	Add Ons
	SAPXBPA	Production	BI, BW	SAP Database	SAP Installation	7.5 SP3	SUSE 11 (HANA)	Virtual HANA	BI Content

BI Central Services	Production	BI, BW	SAP Central Services	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	BI Content
SAPXBPB	Production	BI, BW	SAP App Server	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	BI Content
SAPXBPC	Production	BI, BW	SAP App Server	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	BI Content
SAPXBSA	Sandbox	BI, BW	SAP Database	SAP Installation	7.5 SP3	SUSE 11 (HANA)	Virtual HANA	BI Content
BI Central Services/App Server	Sandbox	BI, BW	SAP Central/App Server	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	BI Content
SAPXEPA	Production	ECC	SAP Database	SAP Installation	6.0 EHP8 SP 7	SUSE 11 (HANA)	Virtual HANA	
ECC Central Services	Production	ECC	SAP Central Services	SAP Installation	6.0 EHP8 SP 7	Windows 2012	## NONE ##	
SAPXEPB	Production	ECC	SAP App Server	SAP Installation	6.0 EHP8 SP 7	Windows 2012	## NONE ##	
SAPXEPC	Production	ECC	SAP App Server	SAP Installation	6.0 EHP8 SP 7	Windows 2012	## NONE ##	
SAPXEPD	Production	ECC	SAP App Server	SAP Installation	6.0 EHP8 SP 7	Windows 2012	## NONE ##	
SAPXEPE	Production	ECC	SAP App Server	SAP Installation	6.0 EHP8 SP 7	Windows 2012	## NONE ##	
SAPXEPF	Production	ECC	SAP App Server	SAP Installation	6.0 EHP8 SP 7	Windows 2012	## NONE ##	
SAPXESA	Sandbox	ECC	SAP Database	SAP Installation	6.0 EHP8 SP 7	SUSE 11 (HANA)	Virtual HANA	
ECC Central Services/App Server	Sandbox	ECC	SAP Central/App Server	SAP Installation	6.0 EHP8 SP 7	Windows 2012	## NONE ##	
SAPXPPA	Production	Enterprise Portal	SAP Database	SAP Installation	7.5 SP3	Windows 2012	SQL Server (Cust)	
SAPXPPB	Production	Enterprise Portal	SAP Central/App Server	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	
SAPXPPC	Production	Enterprise Portal	SAP App Server	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	
SAPXPPD	Production	Enterprise Portal	SAP App Server	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	
SAPXPSA	Sandbox	Enterprise Portal	SAP Database	SAP Installation	7.5 SP3	Windows 2012	SQL Server (Cust)	
SAPXPSB	Sandbox	Enterprise Portal	SAP Central/App Server	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	
SAPXSLA	Production	SolMan - Java	SAP Database	SAP Installation	7.2 SP 2	Windows 2012	SQL Server (Cust)	
SAPXXPA	Production	PI	SAP App Server	SAP Installation	7.5 SP 21	Windows 2008	## NONE ##	
SAPXBDA	Dev	BI, BW	SAP Database	SAP Installation	7.5 SP3	SUSE 11 (HANA)	Virtual HANA	BI Content
BI Central Services/App Server	Dev	BI, BW	SAP Central/App Server	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	BI Content
SAPXBQA	QA	BI, BW	SAP Database	SAP Installation	7.5 SP3	SUSE 11 (HANA)	Virtual HANA	BI Content

BI Central Services/App Server	QA	BI, BW	SAP Central/App Server	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	BI Content
SAPXBQB	QA	BI, BW	SAP App Server	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	BI Content
SAPXEDA	Dev	ECC	SAP Database	SAP Installation	6.0 EHP8 SP 7	SUSE 11 (HANA)	Virtual HANA	
ECC Central Services/App Server	Dev	ECC	SAP Central/App Server	SAP Installation	6.0 EHP8 SP 7	Windows 2012	## NONE ##	
SAPXEQA	QA	ECC	SAP Database	SAP Installation	6.0 EHP8 SP 7	SUSE 11 (HANA)	Virtual HANA	
ECC Central Services/App Server	QA	ECC	SAP Central/App Server	SAP Installation	6.0 EHP8 SP 7	Windows 2012	## NONE ##	
SAPXEQB	QA	ECC	SAP App Server	SAP Installation	6.0 EHP8 SP 7	Windows 2012	## NONE ##	
SAPXEQC	QA	ECC	SAP App Server	SAP Installation	6.0 EHP8 SP 7	Windows 2012	## NONE ##	
SAPXPDA	Dev	Enterprise Portal	SAP Database	SAP Installation	7.5 SP3	Windows 2012	SQL Server (Cust)	
SAPXPDB	Dev	Enterprise Portal	SAP Central/App Server	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	
SAPXPQA	QA	Enterprise Portal	SAP Database	SAP Installation	7.5 SP3	Windows 2012	SQL Server (Cust)	
SAPXPQB	QA	Enterprise Portal	SAP Central/App Server	SAP Installation	7.5 SP3	Windows 2012	## NONE ##	
SAPXXDA	Dev	PI	SAP App Server	SAP Installation	7.1 SP21	Windows 2012	## NONE ##	
SAPXXQA	QA	PI	SAP App Server	SAP Installation	7.1 SP21	Windows 2012	## NONE ##	

Virtustream shall install SBBC's SAP HANA and the following applications identified above, subject to the RASCI, Enterprise Portal, Business Warehouse, Process Integration, ERP Central Component and Solution Manager – Java. Any applications, versions, add-ons or languages not specified above are out of scope under this SOW.

The following applications identified above shall be installed by SBBC or a third party on behalf of SBBC: Web Dispatcher; Fiori; Legacy SAP; File Share; Trex; Open Text.

5. TERM

The Services Term shall commence on the Effective Date and shall remain in effect for an initial term of three (3) years. SBBC may renew the Services Term for two (2) additional one (1) year terms as agreed to by the parties in writing. The fees shall remain in effect during the initial three (3) year Services Term. Prior to commencement of the additional one (1) year terms, Virtustream may increase the fees for the Services by up to three percent (3%) per year. Upon termination of this SOW, Virtustream shall cease performance of the Services; SBBC shall cease use of the Cloud Services and each party shall promptly return any Confidential Information of the other party in its possession.

6. FEES AND EXPENSES

A. *Professional Services*

Virtustream shall provide the Professional Services required to install the applications identified in Section 5, above, as a value-added service. In consideration of the additional Professional Services for the Onboarding Services and the project management provided under this SOW, SBBC shall pay Virtustream the following hourly ratesfor the Professional Services:

Role	Hourly Rate
Program Manager	$ 225.00
Project Manager	$ 190.00
SAP Basis Manager	$ 190.00
SAP Basis	$ 180.00
SAP HANA Basis	$ 225.00
Onboarding Engineer	$ 145.00
Backup/Recovery Specialist	$ 125.00

The total anticipated cost for the Professional Services is **not to exceed $65,000**; provided, however, Virtustream shall not perform Professional Services in excess of $65,000 unless authorized by SBBC in writing.

B.   *Cloud Services*

In consideration of the Cloud Services, SBBC shall pay to Virtustream the one-time set up and the minimum Monthly Recurring Charges ("MRCs"), identified in Exhibit 1. If during each six (6) month period during the Services Term, the average consumption of the Cloud Services during the prior six (6) month period exceeds the μVM, or the applicable quantity, set out in Exhibit 1, SBBC shall pay to Virtustream for such additional consumption at the rates set out in Exhibit 1, subject to Section 6, above. Unless authorized by SBBC in writing, the aggregate MRCs paid by SBBC during the Services Term **shall not exceed $2,919,000.**

C.   *Payment Terms*

The fees due hereunder and any applicable taxes shall be invoiced as follows and shall be due thirty (30) days following receipt of invoice: (i) the one-time charges set out in Exhibit 1 shall be invoiced upon the Effective Date; (ii) the fees for the Professional Services shall be invoiced upon acceptance of each Phase, set out in Section 4(C), above; (iii) the fees for the MRCs shall be invoice monthly in arrears during the Services Term; and (iv) the fees resulting from any increase in μVM or any applicable quantity shall be invoiced in arrears in the month(s) following the increased usage.

7.   CLIENT OBLIGATIONS

A.   *Software*

SBBC shall be responsible licensing all software and applications in scope for the Services for the specified environment for a multi-tenant Cloud Platform environment, including obtaining all necessary licenses and permissions for Virtustream to use any applicable SBBC software, applications and related database that are required for Virtustream to perform the Services. SBBC shall also provide to Virtustream any applicable information to download the SBBC software, acquire additional licenses to SBBC software and reporting issues related to the SBBC software. SBBC represents and warrants that it: (i) owns or has the right to use all SBBC Materials and submit such SBBC Materials to the Cloud Platform SBBC hereby grants to Virtustream the right to use all SBBC Materials and third-party software solely for the purposes of this Agreement and the performance of Virtustream's obligations hereunder.

B.   *Security; Communication to End Users*

1.   Network and Security Changes

SBBC shall be responsible for implementing and maintaining any applicable networking and security changes necessary to support a site-to-site VPN tunnel, MPLS connection or other dedicated connection between Virtustream and SBBC facilities, as required for SBBC to access the Cloud Services. In addition, SBBC shall be responsible for all SBBC Materials submitted to the SBBC Zone and deploying, implementing and measuring security compliance in the SBBC Zone, including but not limited to encryption of data in motion and at rest.

2. SBBC Configuration; Communication

SBBC shall provide Virtustream, upon Virtustream's reasonable request and to the extent available, with any information regarding SBBC's current configuration, existing performance data and historical observations. SBBC shall also be responsible for coordinating and communicating with its user base related to system changes, downtime, or other user communications relevant to the Services, including all end-user security.

C. Servers; Testing and Backup

1. Testing on Source Systems

SBBC shall perform functional and technical performance validation testing on source systems to establish benchmarks for comparison to systems in the Cloud Services. The functional and technical performance validation testing shall be provided in accordance with the detailed project plan of each migrated system as set out in this SOW.

2. Testing on Migrated Systems

SBBC shall, as reasonably determined by the parties, configure applications and interfaces to support testing of the migrated systems to the Cloud Services. SBBC shall use reasonable efforts to provide detailed information relative to the in-scope applications, servers and interfaces based on mutually agreed templates.

3. Servers; Security

SBBC shall be responsible for all support, updates, configuration and installation for any servers or applications not specified in this SOW. SBBC shall be responsible for determining backup and restore requirements by server. SBBC shall be responsible for all end-user security configuration and maintenance for all Operating Systems, Applications, and Databases.

D. General

SBBC shall provide Virtustream with any assistance reasonably required by Virtustream to perform the Services, including providing Virtustream with all information Virtustream may reasonably require to provide the Services. SBBC shall appoint a project manager and other personnel to respond to reasonable requests from Virtustream and to meet with Virtustream as may be requested by Virtustream during the Services Term. SBBC shall ensure that all SBBC personnel who work on Virtustream's systems or equipment are adequately qualified and receive suitable training at SBBC's expense. Any delay in SBBC providing access to required resources to perform the Services may delay the effort required to complete this SOW; provided, however, Virtustream shall provide notice, if practicable, to SBBC of any such delay and work with SBBC to anticipate, avoid and minimize such delays.

8.   ASSUMPTIONS

SBBC shall license and provide the Windows operating system or a Linux-based operating system that is supported by Virtustream, including obtaining the applicable maintenance support. SBBC shall be responsible for obtaining all rights necessary for Virtustream to install and use such operating system with the Cloud Platform.

9.   CLIENT CONTACT INFORMATION

Primary Project Contact	
Name:	Edward J Hineline Jr
Title:	Director, Business Applications
Company:	Broward County Public Schools
Address:	7720 W Oakland Park Blvd, Sunrise, FL 33351

Email:	Ed.Hineline@browardschools.com
Phone:	754-321-0288
Accounting / Finance Contact	
Name:	Accounts Payable
Title:	Accounts Payable
Company:	School Board of Broward County
Address:	600 SE Third Avenue, Fort Lauderdale, Florida 33301
Email:	
Phone:	

10. GENERAL

A. *Change Order*

If SBBC desires to retain Virtustream to perform any additional Services or the parties desire to modify the Services, the parties shall execute a new statement of work, project change request or amendment hereto. The new statement or work, project change request or amendment shall specify the additional services and identify any additional fees.
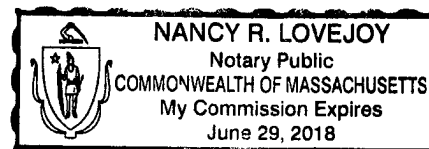
B. *Order of Precedence*

This SOW and the Agreement constitute the entire agreement of the parties with respect to the Services and supersedes all prior or contemporaneous oral or written communications, proposals and representations with respect to their subject matter hereto and shall prevail over any conflicting or additional terms of any quote, invoice, acknowledgement, pre-printed P.O. terms, or similar communications between the Parties. In the event of a conflict between this SOW and the Agreement, this SOW shall govern. No modification to this SOW will be binding unless in writing and signed by an authorized representative of each Party.

IN WITNESS WHEREOF, the parties have executed this SOW as of the date set forth above.

VIRTUSTREAM, INC.

By: _____

Name: Vanessa E. Candela

Title: VP, Legal Counsel

Date: 9|1|2017

Nancy R. Lovejoy

NANCY R. LOVEJOY
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires
June 29, 2018

FOR SBBC

(Corporate Seal)

THE SCHOOL BOARD OF BROWARD
COUNTY, FLORIDA

By _Abby M. Freedman_
Abby M. Freedman, Chair

September 2017
Date

ATTEST:

Robert W. Runcie

Robert W. Runcie, Superintendent of Schools

Approved as to Form and Legal Content:

Janette M. Smith Digitally signed by Janette M.
Smith
Date: 2017.09.05 11:46:53 -04'00'

Office of the General Counsel

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EXHIBIT 1

CLOUD SERVICES

ONE TIME SETUP CHARGES

PRODUCT ID	PRODUCT	UNIT	UNIT PRICE	QUANTITY	TOTAL PRICE
AM-SVC-ONCC-1T	Application Managed Services Setup	VM	$155.00	25	$3,875.00
DC-NWU3-XCC-1T	Copper Cross Connect - USDC3 - Installation	Each	$580.50	1	$580.50
DC-NWU3-XCF-1T	Fiber Cross Connect - USDC3 - Installation	Each	$766.70	1	$766.70
DC-NWU4-XCC-1T	Copper Cross Connect - USDC4 - Installation	Each	$580.50	1	$580.50
DC-NWU4-XCF-1T	Fiber Cross Connect - USDC4 - Installation	Each	$766.70	1	$766.70
CS-ENC-AGT-1T	Encryption Agent Setup	VM	$153.00	1	$153.00
CS-ENC-SYSS-1T	Encryption Management System Setup - SaaS	Each	$1,827.50	1	$1,827.50
CS-FA-FAE-1T	Firewall Audit Export Setup	Firewall	$1,062.50	2	$2,125.00
CS-FA-SYS-1T	Firewall Audit System Setup	Account	$2,550.00	2	$5,100.00
CS-FW-FW-1T	Firewall Configuration/Setup	Firewall	$1,593.75	2	$3,187.50
CS-IDS-NB1-1T	Network Based Intrusion Detection Primary Site Setup	VLAN	$1,088.00	1	$1,088.00
CS-IDS-NB2-1T	Network Based Intrusion Detection Secondary Site Setup	VLAN	$640.00	1	$640.00
CS-TM-IDFW1-1T	Intrusion Detection and Firewall Primary System Setup	Account	$546.43	1	$546.43
CS-TM-IDFW2-1T	Intrusion Detection and Firewall Secondary System Setup	Account	$214.29	1	$214.29
CS-VPN-C-1T	IPSec VPN Client-Side Configuration	Each	$165.75	2	$331.50
CS-VPN-H-1T	IPSec VPN Host-Side Configuration	Each	$132.81	2	$265.62
CS-VS-LM-1T	Log Management System Setup	Each	$425.00	1	$425.00
CS-VS-MLM-1T	Managed Log Management Service Setup	VM	$85.00	29	$2,465.00
HM-HA-VIR-1T	vHANA Installation and Setup Charge - Virtual Appliance	VM	$850.00	8	$6,800.00
IC-DP-BU-1T	System Backup Setup	Account	$425.00	1	$425.00
IC-ONB-FUL-1T	IaaS Onboarding - Full	VM	$947.75	46	$43,596.50
					$75,759.74

MONTHLY RECURRING CHARGES (MRCs)

During each Phase of the Services, SBBC shall pay a minimum monthly fee identified below. The monthly fee shall consist of a fixed cost for certain products and a variable cost, set out herein and subject to the applicable quantity.

Fixed MRCs

During each Phase, SBBC shall pay the following fixed costs based on the applicable quantity:

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-AM-SAP-PRO-MT	SAP Support - Monitoring Tool	Account	1	$102.09	$102.09
U-IT-AM-TAMS-TAMSG-C	Technical Account Management Services - Gold	Each	1	$10,000.00	$10,000.00
U-IT-DC-NWU3-XCC-MF	Copper Cross Connect - USDC3	Each	1	$471.36	$471.36
U-IT-DC-NWU3-XCF-MF	Fiber Cross Connect - USDC3	Each	1	$386.36	$386.36
U-IT-DC-NWU4-XCC-MF	Copper Cross Connect - USDC4	Each	1	$327.33	$327.33

U-IT-DC-NWU4-XCF-MF	Fiber Cross Connect - USDC4	Each	1	$268.31	$268.31
U-IT-DC-RKU3-RK-HR	Hotel Rack (1U) - Managed Colo - USDC3	Rack Unit	2	$459.00	$918.00
U-IT-DC-RKU4-RK-HR	Hotel Rack (1U) - Managed Colo - USDC4	Rack Unit	2	$318.75	$637.50
U-IT-DC-SVC-REU3-AH	Remote eyes and hands - USDC3 (1 Hour)	Each	1	$206.27	$206.27
U-IT-DC-SVC-REU4-AH	Remote eyes and hands - USDC4 (1 Hour)	Each	1	$206.27	$206.27
U-IT-CS-ENC-AGT-MF	Encryption Agent per Machine	VM	5	$74.38	$371.88
U-IT-CS-ENC-SYS-SYS	Encryption Management System Fee	Account	1	$501.74	$501.74
U-IT-CS-FA-FA-SYS	Firewall Audit System	System	2	$398.44	$796.88
U-IT-CS-FA-MFA-SVC	Managed Firewall Auditing Service	Firewall	2	$159.38	$318.75
U-IT-CS-FW-MPF-SVC	Managed Perimeter Firewall	VM	3	$21.25	$63.75
U-IT-CS-IDS-NB1-SYS	Network Based Intrusion Detection System and Managed Service - Primary	VLAN	2	$564.90	$1,129.79
U-IT-CS-IDS-NB2-SYS	Network Based Intrusion Detection System and Managed Service - Secondary	VLAN	2	$331.25	$662.50
U-IT-CS-NW-BWU3-NET	Network Bandwidth Fee - USDC3	Mbps	5	$19.69	$98.44
U-IT-CS-NW-BWU4-NET	Network Bandwidth Fee - USDC4	Mbps	5	$19.69	$98.44
U-IT-CS-TM-IDFW-SVC	Intrusion Detection and Firewall Managed Service	VM	38	$61.86	$2,350.50
U-IT-CS-TM-IDFW1-SYS	Intrusion Detection and Firewall Primary System	Account	1	$120.17	$120.17
U-IT-CS-TM-IDFW2-SYS	Intrusion Detection and Firewall Secondary System	Account	1	$17.36	$17.36
U-IT-CS-VPN-T-SVC	IPSec VPN Tunnel Managed Service	Each	2	$38.37	$76.74
U-IT-CS-VPN-U3-NET	IPSec VPN Bandwidth Fee - USDC3	Mbps	16	$25.82	$413.16
U-IT-CS-VPN-U4-NET	IPSec VPN Bandwidth Fee - USDC4	Mbps	15	$25.82	$387.33
U-IT-CS-VS-LM-SYS	Log Management System Fee	Each	1	$1,180.56	$1,180.56
U-IT-CS-VS-MLM-SVC	Managed Log Management Service	VM	21	$48.91	$1,027.08
U-IT-CS-CMP-HIPA-SCV	HIPAA Compliance fee	Account	1	$833.33	$833.33
U-IT-IC-DP-BU-REP	System Backup - Replicated	GB	823	$1.06	$872.29
U-IT-IC-NW-IPAD-V4	Public IP Address (IPv4)	IP Address	4	$17.12	$68.47
TOTAL FIXED FEES					**$24,912.62**

Variable Cost

In addition to the fixed cost. SBBC shall pay during each Phase of the Services the following minimum MRCs to set up the BW and ECC applications in the Cloud Platform, subject to the applicable quantity, and the managed services. The total MRCs in each Phases are cumulative to the fees in the prior Phases:

Phase 1 – Sandbox BW (2 months –estimated)

Managed Services

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-AM-SAP-CASD-US	SAP Support - Class A - Small Database Servers - Commercial	VM	1	$961.55	$961.55
U-IT-AM-SAP-CCSE-US	SAP Support - Class C - Small SAP Environment - Commercial	VM	1	$465.29	$465.29
Total					$1,426.84

µVM; Storage

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-HM-UVV-BAS-ENT	vHANA Enterprise Basic µVM Variable	micro-VM	187	$10.40	$1,944.02
U-IT-HM-UVV-COR-ENT	vHANA Enterprise Core µVM Variable	micro-VM	128	$15.99	$2,046.73
U-IT-HM-VVM-BAS-ENT	vHANA Enterprise Basic VM Fee	VM	0	$646.67	$0.00
U-IT-HM-VVM-COR-ENT	vHANA Enterprise Core VM Fee	VM	0	$638.89	$0.00
U-IT-IC-STO-T1A-LOC	Tier I Block Storage - IZ - Local Only	GB	703	$0.22	$154.65
U-IT-IC-STO-T1A-REP	Tier I Block Storage - IZ - Replicated	GB	293	$0.48	$140.61
U-IT-IC-STO-T2AD-LOC	Tier II Block Storage - DMZ - Local Only	GB	25	$0.15	$3.74
U-IT-IC-STO-T2AD-REP	Tier II Block Storage - DMZ - Replicated	GB	27	$0.35	$9.42
U-IT-IC-STO-T2A-LOC	Tier II Block Storage - IZ - Local Only	GB	1204	$0.15	$180.60
U-IT-IC-STO-T2A-REP	Tier II Block Storage - IZ - Replicated	GB	922	$0.35	$322.70
U-IT-IC-UVM-BAS-DMZ	DMZ Basic µVM	micro-VM	0	$29.00	$0.00
U-IT-IC-UVM-BAS-ENT	Enterprise Basic µVM	micro-VM	15	$35.66	$534.90
U-IT-IC-UVM-BAS-DMZ	DMZ Core µVM	micro-VM	1	$44.44	$44.44
U-IT-IC-UVM-COR-ENT	Enterprise Core µVM	micro-VM	33	$47.85	$1,579.11
TOTAL VARIABLE FEES					$6,960.92

Phase 2 – Test and Development – BW (2 months –estimated)

Managed Services

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-AM-SAP-CASD-US	SAP Support - Class A - Small Database Servers - Commercial	VM	2	$961.55	$1,923.11
U-IT-AM-SAP-CCSE-US	SAP Support - Class C - Small SAP Environment - Commercial	VM	2	$465.29	$1,395.86
Total					$2,853.68

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µ VM; Storage

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-HM-UVV-BAS-ENT	vHANA Enterprise Basic µ VM Variable	micro-VM	438	$10.40	$4,553.38
U-IT-HM-UVV-COR-ENT	vHANA Enterprise Core µ VM Variable	micro-VM	298	$15.99	$4,765.05
U-IT-HM-VVM-BAS-ENT	vHANA Enterprise Basic VM Fee	VM	2	$646.67	$1,293.33
U-IT-HM-VVM-COR-ENT	vHANA Enterprise Core VM Fee	VM	0	$638.89	$0.00
U-IT-IC-STO-T1A-LOC	Tier I Block Storage - IZ - Local Only	GB	1640	$0.22	$360.77
U-IT-IC-STO-T1A-REP	Tier I Block Storage - IZ - Replicated	GB	684	$0.48	$328.25
U-IT-IC-STO-T2AD-LOC	Tier II Block Storage - DMZ - Local Only	GB	58	$0.15	$8.68
U-IT-IC-STO-T2AD-REP	Tier II Block Storage - DMZ - Replicated	GB	64	$0.35	$22.32
U-IT-IC-STO-T2A-LOC	Tier II Block Storage - IZ - Local Only	GB	2810	$0.15	$421.49
U-IT-IC-STO-T2A-REP	Tier II Block Storage - IZ - Replicated	GB	2152	$0.35	$753.20
U-IT-IC-UVM-BAS-DMZ	DMZ Basic µ VM	micro-VM	1	$29.00	$29.00
U-IT-IC-UVM-BAS-ENT	Enterprise Basic µ VM	micro-VM	35	$35.66	$1,248.10
U-IT-IC-UVM-BAS-DMZ	DMZ Core µ VM	micro-VM	3	$44.44	$133.33
U-IT-IC-UVM-COR-ENT	Enterprise Core µ VM	micro-VM	78	$47.85	$3,732.44
TOTAL VARIABLE FEES					**$12,320.35**

Phase 3 – QA – BW (1 month –estimated)

Managed Services

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-AM-SAP-CASD-US	SAP Support - Class A - Small Database Servers - Commercial	VM	3	$961.55	$2,884.65
U-IT-AM-SAP-CCSE-US	SAP Support - Class C - Small SAP Environment - Commercial	VM	4	$465.29	$1,861.16
Total					**$4,745.81**

µ VM; Storage

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-HM-UVV-BAS-ENT	vHANA Enterprise Basic µ VM Variable	micro-VM	563	$10.40	$5,852.86
U-IT-HM-UVV-COR-ENT	vHANA Enterprise Core µ VM Variable	micro-VM	384	$15.99	$6,140.20
U-IT-HM-VVM-BAS-ENT	vHANA Enterprise Basic VM Fee	VM	2	$646.67	$1,293.33
U-IT-HM-VVM-COR-ENT	vHANA Enterprise Core VM Fee	VM	0	$638.89	$0.00

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-IC-STO-T1A-LOC	Tier I Block Storage - IZ - Local Only	GB	2109	$0.22	$463.94
U-IT-IC-STO-T1A-REP	Tier I Block Storage - IZ - Replicated	GB	880	$0.48	$422.30
U-IT-IC-STO-T2AD-LOC	Tier II Block Storage - DMZ - Local Only	GB	75	$0.15	$11.22
U-IT-IC-STO-T2AD-REP	Tier II Block Storage - DMZ - Replicated	GB	82	$0.35	$28.60
U-IT-IC-STO-T2A-LOC	Tier II Block Storage - IZ - Local Only	GB	3613	$0.15	$541.94
U-IT-IC-STO-T2A-REP	Tier II Block Storage - IZ - Replicated	GB	2767	$0.35	$968.45
U-IT-IC-UVM-BAS-DMZ	DMZ Basic µVM	micro-VM	1	$29.00	$29.00
U-IT-IC-UVM-BAS-ENT	Enterprise Basic µVM	micro-VM	45	$35.66	$1,604.70
U-IT-IC-UVM-BAS-DMZ	DMZ Core µVM	micro-VM	4	$44.44	$177.78
U-IT-IC-UVM-COR-ENT	Enterprise Core µVM	micro-VM	101	$47.85	$4,833.04
TOTAL VARIABLE FEES					**$22,367.35**

Phase 4 – Steady State/Production – BW

Managed Services

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-AM-SAP-CASD-US	SAP Support - Class A - Small Database Servers - Commercial	VM	4	$961.55	$3,846.20
U-IT-AM-SAP-CCSE-US	SAP Support - Class C - Small SAP Environment - Commercial	VM	7	$465.29	$3,257.03
Total					**$7,103.23.**

µVM; Storage

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-HM-UVV-BAS-ENT	vHANA Enterprise Basic µVM Variable	micro-VM	688	$10.40	$7,152.34
U-IT-HM-UVV-COR-ENT	vHANA Enterprise Core µVM Variable	micro-VM	469	$15.99	$7,499.36
U-IT-HM-VVM-BAS-ENT	vHANA Enterprise Basic VM Fee	VM	3	$646.67	$1,940.00
U-IT-HM-VVM-COR-ENT	vHANA Enterprise Core VM Fee	VM	1	$638.89	$638.89
U-IT-IC-STO-T1A-LOC	Tier I Block Storage - IZ - Local Only	GB	2578	$0.22	$567.11
U-IT-IC-STO-T1A-REP	Tier I Block Storage - IZ - Replicated	GB	1075	$0.48	$515.88
U-IT-IC-STO-T2AD-LOC	Tier II Block Storage - DMZ - Local Only	GB	92	$0.15	$13.76
U-IT-IC-STO-T2AD-REP	Tier II Block Storage - DMZ - Replicated	GB	101	$0.35	$35.22
U-IT-IC-STO-T2A-LOC	Tier II Block Storage - IZ - Local Only	GB	4416	$0.15	$662.38
U-IT-IC-STO-T2A-REP	Tier II Block Storage - IZ - Replicated	GB	3382	$0.35	$1,183.70

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-IC-UVM-BAS-DMZ	DMZ Basic μVM	micro-VM	1	$29.00	$29.00
U-IT-IC-UVM-BAS-ENT	Enterprise Basic μVM	micro-VM	55	$35.66	$1,961.30
U-IT-IC-UVM-BAS-DMZ	DMZ Core μVM	micro-VM	4	$44.44	$177.78
U-IT-IC-UVM-COR-ENT	Enterprise Core μVM	micro-VM	123	$47.85	$5,885.78
TOTAL VARIABLE FEES					**$28,262.51**

Phase 5 – Sandbox – ECC (2 months estimated)

Managed Services

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-AM-SAP-CASD-US	SAP Support - Class A - Small Database Servers - Commercial	VM	5	$961.55	$4,807.75
U-IT-AM-SAP-CBSD-US	SAP Support - Class B - Small Database Servers - Commercial	VM	2	$793.38	$1,586.76
U-IT-AM-SAP-CCSE-US	SAP Support - Class C - Small SAP Environment - Commercial	VM	8	$465.29	$3,722.32
Total					**$10,116.83**

μVM; Storage

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-HM-UVV-BAS-ENT	vHANA Enterprise Basic μVM Variable	micro-VM	813	$10.40	$8,451.82
U-IT-HM-UVV-COR-ENT	vHANA Enterprise Core μVM Variable	micro-VM	555	$15.99	$8,874.51
U-IT-HM-VVM-BAS-ENT	vHANA Enterprise Basic VM Fee	VM	3	$646.67	$1,940.00
U-IT-HM-VVM-COR-ENT	vHANA Enterprise Core VM Fee	VM	1	$638.89	$638.89
U-IT-IC-STO-T1A-LOC	Tier I Block Storage - IZ - Local Only	GB	3047	$0.22	$670.28
U-IT-IC-STO-T1A-REP	Tier I Block Storage - IZ - Replicated	GB	1271	$0.48	$609.94
U-IT-IC-STO-T2AD-LOC	Tier II Block Storage - DMZ - Local Only	GB	109	$0.15	$16.31
U-IT-IC-STO-T2AD-REP	Tier II Block Storage - DMZ - Replicated	GB	119	$0.35	$41.50
U-IT-IC-STO-T2A-LOC	Tier II Block Storage - IZ - Local Only	GB	5219	$0.15	$782.83
U-IT-IC-STO-T2A-REP	Tier II Block Storage - IZ - Replicated	GB	3997	$0.35	$1,398.95
U-IT-IC-UVM-BAS-DMZ	DMZ Basic μVM	micro-VM	1	$29.00	$29.00
U-IT-IC-UVM-BAS-ENT	Enterprise Basic μVM	micro-VM	65	$35.66	$2,317.90
U-IT-IC-UVM-BAS-DMZ	DMZ Core μVM	micro-VM	5	$44.44	$222.22
U-IT-IC-UVM-COR-ENT	Enterprise Core μVM	micro-VM	146	$47.85	$6,986.37
TOTAL VARIABLE FEES					**$32,980.52**

Phase 6 – Test and Development – ECC (2 months estimated)

Managed Services

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-AM-SAP-CASD-US	SAP Support - Class A - Small Database Servers - Commercial	VM	6	$961.55	$5,769.30
U-IT-AM-SAP-CBSD-US	SAP Support - Class B - Small Database Servers - Commercial	VM	3	$793.38	$2,380.14
U-IT-AM-SAP-CCSE-US	SAP Support - Class C - Small SAP Environment - Commercial	VM	10	$465.29	$4,652.90
Total					$12,802.34

µVM; Storage

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-HM-UVV-BAS-ENT	vHANA Enterprise Basic µVM Variable	micro-VM	939	$10.40	$9,761.70
U-IT-HM-UVV-COR-ENT	vHANA Enterprise Core µVM Variable	micro-VM	640	$15.99	$10,233.67
U-IT-HM-VVM-BAS-ENT	vHANA Enterprise Basic VM Fee	VM	4	$646.67	$2,586.67
U-IT-HM-VVM-COR-ENT	vHANA Enterprise Core VM Fee	VM	1	$638.89	$638.89
U-IT-IC-STO-T1A-LOC	Tier I Block Storage - IZ - Local Only	GB	3516	$0.22	$773.45
U-IT-IC-STO-T1A-REP	Tier I Block Storage - IZ - Replicated	GB	1467	$0.48	$704.00
U-IT-IC-STO-T2AD-LOC	Tier II Block Storage - DMZ - Local Only	GB	126	$0.15	$18.85
U-IT-IC-STO-T2AD-REP	Tier II Block Storage - DMZ - Replicated	GB	138	$0.35	$48.13
U-IT-IC-STO-T2A-LOC	Tier II Block Storage - IZ - Local Only	GB	6022	$0.15	$903.28
U-IT-IC-STO-T2A-REP	Tier II Block Storage - IZ - Replicated	GB	4612	$0.35	$1,614.20
U-IT-IC-UVM-BAS-DMZ	DMZ Basic µVM	micro-VM	2	$29.00	$58.00
U-IT-IC-UVM-BAS-ENT	Enterprise Basic µVM	micro-VM	75	$35.66	$2,674.50
U-IT-IC-UVM-BAS-DMZ	DMZ Core µVM	micro-VM	6	$44.44	$266.67
U-IT-IC-UVM-COR-ENT	Enterprise Core µVM	micro-VM	168	$47.85	$8,039.11
TOTAL VARIABLE FEES					$38,321.10

Phase 7 – QA – ECC (1 month estimated)

Managed Services

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-AM-SAP-CASD-US	SAP Support - Class A - Small Database Servers - Commercial	VM	7	$961.55	$6,730.85

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-AM-SAP-CBSD-US	SAP Support - Class B - Small Database Servers - Commercial	VM	4	$793.38	$3,173.52
U-IT-AM-SAP-CCSE-US	SAP Support - Class C - Small SAP Environment - Commercial	VM	14	$465.29	$6,514.06
Total					**$16,418.43**

µ VM; Storage

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-HM-UVV-BAS-ENT	vHANA Enterprise Basic µ VM Variable	micro-VM	1001	$10.40	$10,406.24
U-IT-HM-UVV-COR-ENT	vHANA Enterprise Core µ VM Variable	micro-VM	683	$15.99	$10,921.25
U-IT-HM-VVM-BAS-ENT	vHANA Enterprise Basic VM Fee	VM	4	$646.67	$2,586.67
U-IT-HM-VVM-COR-ENT	vHANA Enterprise Core VM Fee	VM	1	$638.89	$638.89
U-IT-IC-STO-T1A-LOC	Tier I Block Storage - IZ - Local Only	GB	3750	$0.22	$824.92
U-IT-IC-STO-T1A-REP	Tier I Block Storage - IZ - Replicated	GB	1564	$0.48	$750.55
U-IT-IC-STO-T2AD-LOC	Tier II Block Storage - DMZ - Local Only	GB	134	$0.15	$20.05
U-IT-IC-STO-T2AD-REP	Tier II Block Storage - DMZ - Replicated	GB	147	$0.35	$51.26
U-IT-IC-STO-T2A-LOC	Tier II Block Storage - IZ - Local Only	GB	6424	$0.15	$963.57
U-IT-IC-STO-T2A-REP	Tier II Block Storage - IZ - Replicated	GB	4920	$0.35	$1,722.00
U-IT-IC-UVM-BAS-DMZ	DMZ Basic µ VM	micro-VM	2	$29.00	$58.00
U-IT-IC-UVM-BAS-ENT	Enterprise Basic µ VM	micro-VM	80	$35.66	$2,852.80
U-IT-IC-UVM-BAS-DMZ	DMZ Core µ VM	micro-VM	7	$44.44	$311.11
U-IT-IC-UVM-COR-ENT	Enterprise Core µ VM	micro-VM	180	$47.85	$8,613.33
TOTAL VARIABLE FEES					**$40,720.64**

Phase 8 – Steady State/Products – ECC

Managed Services – 3 months [Note 1]

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-AM-SAP-CASD-US	SAP Support - Class A - Small Database Servers - Commercial	VM	8	$961.55	$7,692.40
U-IT-AM-SAP-CBSD-US	SAP Support - Class B - Small Database Servers - Commercial	VM	5	$793.38	$3,966.90
U-IT-AM-SAP-CCSE-US	SAP Support - Class C - Small SAP Environment - Commercial	VM	22	$465.29	$10,236.38
Total					**$21,895.68**

Note 1: The Managed Services shall terminate 3 months following commencement of Steady State/Products. The Managed Services may be extended as agreed to by the parties in writing.

μVM; Storage

SKU	PRODUCT	UNIT	QUANTITY	PER-UNIT COST	MONTHLY FEE
U-IT-HM-UVV-BAS-ENT	vHANA Enterprise Basic μVM Variable	micro-VM	1064	$10.40	$11,061.18
U-IT-HM-UVV-COR-ENT	vHANA Enterprise Core μVM Variable	micro-VM	725	$15.99	$11,592.83
U-IT-HM-VVM-BAS-ENT	vHANA Enterprise Basic VM Fee	VM	5	$646.67	$3,233.33
U-IT-HM-VVM-COR-ENT	vHANA Enterprise Core VM Fee	VM	1	$638.89	$638.89
U-IT-IC-STO-T1A-LOC	Tier I Block Storage - IZ - Local Only	GB	3984	$0.22	$876.40
U-IT-IC-STO-T1A-REP	Tier I Block Storage - IZ - Replicated	GB	1662	$0.48	$797.58
U-IT-IC-STO-T2AD-LOC	Tier II Block Storage - DMZ - Local Only	GB	142	$0.15	$21.24
U-IT-IC-STO-T2AD-REP	Tier II Block Storage - DMZ - Replicated	GB	156	$0.35	$54.40
U-IT-IC-STO-T2A-LOC	Tier II Block Storage - IZ - Local Only	GB	6825	$0.15	$1,023.72
U-IT-IC-STO-T2A-REP	Tier II Block Storage - IZ - Replicated	GB	5227	$0.35	$1,829.45
U-IT-IC-UVM-BAS-DMZ	DMZ Basic μVM	micro-VM	2	$29.00	$58.00
U-IT-IC-UVM-BAS-ENT	Enterprise Basic μVM	micro-VM	85	$35.66	$3,031.10
U-IT-IC-UVM-BAS-DMZ	DMZ Core μVM	micro-VM	7	$44.44	$311.11
U-IT-IC-UVM-COR-ENT	Enterprise Core μVM	micro-VM	191	$47.85	$9,139.70
TOTAL VARIABLE FEES					**$43,688.94**

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EXHIBIT 2

RASCI

The following charts identify the role of the parties based on the following:

R: Responsible for ensuring that the task or deliverable is completed accurately and timely; the "doer."
A: Accountable is the authority who approves the work of R before it is effective.
S: Support R as necessary to complete the task or deliverable.
C: Consulted reviews output or progress necessary to complete the task or deliverable.
I: Informed needs to be notified of results, completion, or deliverable but need not necessarily be consulted.

The charts are intended to show ownership for stated tasks. The charts are not intended to show in-scope activities or identify tasks that are necessary for completion of the Services. The tasks included in this matrix may not be required for the completion of the Services. Any tasks not included are considered out of scope.

Professional Services RASCI for Deployment Type SAP Installation

Tasks	SAP Installation		
	Virtustream	SBBC	Notes
System Management			
Install Application and Database	R,A	C	
Configure Application Interfaces	C	R,A	
Resolution of Incident/Service tickets	R,A	R	For application installation issues only
SAP Service Marketplace Basis note application	I	R,A	Post migration: Virtustream AMS will support
SAP Service Marketplace functional or business process related note application	C	R,A	Post migration: Virtustream AMS will support
SAP Service Marketplace connection management	I	R	SBBC must provide appropriate authorization, else SBBC is R
Management and implementation of enhancement packs	NA	NA	
Troubleshoot and resolve functional/business application background job issues	C	R,A	Post migration: Virtustream AMS will support
Troubleshoot and resolve performance issues in custom application code	C	R, A	
Perform application code tuning	C	R,A	
Schedule SAP standard Housekeeping jobs		C, I	Post migration: Virtustream AMS will support
Business Process Batch job management	C,I	R,A	
Interface scheduling and monitoring (per documented process)	I	R,A	Post migration: Virtustream AMS will support
Troubleshoot and resolve system-related short dump (non-functional)		R, A	Post migration: Virtustream AMS will support
Troubleshoot and resolve application and functional short dump	C	R,A	After turning to steady state, Virtustream AMS will support
System log file analysis, management, resolution		R,A	After turning to steady state, Virtustream AMS will support
SAP client maintenance		R,A	
SAP Client Creation, up to three		R,A	
Perform application startup and shutdown		A,C,	During the migration, the client can startup and shutdown the application as needed.
Activate SAP Business Functionality		R,A	
Monitor SAP application logs (SLG1)		R,A	After turning to steady state, Virtustream AMS will support
Output Management			

Monitor Operating System spool system for errors	C	R,A	After turning to steady state, Virtustream AMS will support
Troubleshoot and resolve SAP system printing issues		R,A	
Troubleshoot and resolve site printing issues	C	R,A	
Setup and test up to 4 system printers within SAP system		R,A	
Setup and test Print Server	C,I	R,A	
Setup and test site printers on spool system / print server	C	R,A	
Define printer specifications	C	R,A	
Print server and output troubleshooting	C	R,A	
Client and Change Management			
Perform initial client copy		R,A	
Define change management process	C,I	R,A	
Manage transport management system configuration		R,A	After turning to steady state, Virtustream AMS will support
ABAP Systems: Apply transports	C	R, A	After turning to steady state, Virtustream AMS will support
JAVA Systems: Migrate configuration and code changes	C	R,A	
BOBJ Systems: Migrate configuration and code changes	C	R,A	Not applicable
Software Management			
Provide SAP Service Marketplace ID for SAP Software download for SBBC licensed software	C, I	R, A	
Provide SAP Service Marketplace ID for SAP Software download for Virtustream licensed software	R,A	I	Not applicable
Download required SAP software	R,A	I	
Document software versions	R,A	I	
Document end of support dates		R, A	
Apply SAP software updates (eg, support packages, kernel, etc)	R	A	
Apply database software updates (eg, service packages, etc)	R	A	
Install new applications and software components	R	A	
SAP Installation			
Define SAP instance naming convention	C,I	R,A	
Define database instance and schema naming convention	C,I	R,A	
Define instance number conventions	C,I	R,A	
Define SAP client strategy	C,I	R,A	
Install Base version of SAP product	R,A	I	As defined in SOW
Initial Kernel Update	R,A	C,I	
Update SAP Application Component Levels (support packages)	R,A	C,I	Only if defined in SOW, and Solution Manager integration available
Install SAP Enhancement Packs	R,A	C,I	Only if defined in SOW, and Solution Manager integration available
Update third-party products to connect to SAP systems	C	R,A	
Test and resolve third-party connections to SAP systems	C	R,A	
Front End tools			
Troubleshoot and resolve desktop connectivity	C,I	R,A	
Define required front-end version	C,I	R,A	
Install and troubleshoot front-end applications	C,I	R,A	
Download software for front-end applications	C,I	R,A	
SAP and DB Security			
Create user accounts in application for backup and monitoring tools	R,A	I	Need to inform the client.
Create user accounts in database for backup and monitoring tools	R,A	I	Need to inform the client.
Create single user account in SAP clients and instances for SBBC security team	R,A	I	Need to inform the client.
Create single user in databases for Security team	R,A	I	
Create end-user accounts in application		R,A	
Create end-user accounts in database	I	R,A	

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	Virtustream Onboarding	SBBC	
Define required roles and profiles		R,A	
Create required roles and profiles		R,A	
Modify required roles and profiles		R,A	
SAP Application Specific	**Virtustream Onboarding**	**SBBC**	
SAP IQ (NLS)			
Install SAP IQ database instance	R,A		
Apply service packs and/or patches to SAP IQ instance	R,A		
Create new database for NLS	R,A		
Setup SAP IQ Cockpit	R,A		
Install drivers and libraries for IQ connectivity to SAP BW	R,A		
Configure SSL support	R,A		
Create user for connection to IQ database	R,A		
Create DB connection	R,A		
Create NLS connections	R,A		
Configure automated backup option	R,A		
Configure HANA Smart Data Access	R,A		
Setup DBA Cockpit for SAP IQ Monitoring	R,A		
Develop and implement data aging strategy in BW		R, A	
Create data archiving processes		R, A	
Create process chains		R, A	
Adjust settings for queries and multiproviders		R, A	
Modify parameters for cache sizes	R,A		
Provide source data	NA	NA	
Migrate or restore data from source system	NA	NA	
BW			
Configure Source Systems in RSA1	C	R,A	Not applicable.
Execute Data Loads	I	R,A	Not applicable.
Troubleshoot and Resolve errors in data loads	C	R,A	Not applicable.
Troubleshoot and resolve system performance issues with data loads	NA	NA	After turning to steady state, Virtustream AMS will support
Troubleshoot and resolve application performance issues with data loads	NA	NA	After turning to steady state, Virtustream AMS will support
Process Orchestration / Process Integration			
Perform basic configuration using CTC wizard	C,I	R,A	
Define required XI content	C,I	R,A	
Import required XI content	C,I	R,A	
Resolve issues related to connection configuration	C	R,A	
Configure connections for business processes	C	R,A	
Solution Manager			
Use SAP wizard to configure Maintenance Optimizer (MOPZ) or Maintenance Planner	C,I	R,A	
Configure Solution Manager functions (excluding MOPZ and Maintenance Planner)	C	R,A	
Update technical SLD Content	C,I	R,A	
Connect all Virtustream-built SAP systems to SLD	C,I	R,A	
Connect all Virtustream-built SAP systems to Solution Manager	C,I	R,A	

RASCI for Virtustream Application Management Services
RACI for SAP Monitoring

Service Code	Service Name	Service Description	Virtustream	SBBC
AVM001	system availability	Checks that OS, RDBMS or applications are available.	RA	CI
AVM002	file system space	Check file system free space is available	RA	CI
AVM003	event log management	Monitor Event Logs for critical or error event levels	RA	CI
AVM004	system usage/utilization	Monitor CPU, Memory and other system counters that measure usage or utilization	RA	CI
AVM005	Service/Daemon/ Process State	Monitor the up down, stopped or start of specific services/daemons and named processes	RA	CI

RACI for Operating System and Database Monitoring

Service Code	Service Name	Service Description	Virtustream	SBBC
AVM001	system availability	Checks that OS, RDBMS or applications are available.	RA	CI
AVM002	file system space	Check file system free space is available	RA	CI
AVM003	event log management	Monitor Event Logs for critical or error event levels	RA	CI
AVM004	system usage/utilization	Monitor CPU, Memory and other system counters that measure usage or utilization	RA	CI
AVM005	Service/Daemon/ Process State	Monitor the up down, stopped or start of specific services/daemons and named processes	RA	CI

RACI FOR OPERATING SYSTEM MANAGEMENT

Service Name	Service Description	Virtustream	SBBC
OSM001: Storage And File Management	Add new disk or file system to a virtual machine	RA	CI
	Delete a disk or file system form a virtual machine	RA	CI
	Extend disk or file system on a virtual machine	RA	CI
	Shrink disk or file system on a virtual machine	RA	CI
	Build new virtual machines	RA	CI
OSM002: User And Profile Management	Create new local user account with SBBC approval	RA	CI
	Delete new local user account with SBBC approval	RA	CI
	Modify new local user account with SBBC approval	RA	CI
OSM003: Configuration Management	Add OS level parameters to improve system performance based on vendor specific recommendations or information gathered from Capacity Management or Service Monitoring	RA	CI
	Delete OS level parameters to improve system performance based on vendor specific recommendations or information gathered from Capacity Management or Service Monitoring	RA	CI
	Modify OS level parameters to improve system performance based on vendor specific recommendations or information gathered from Capacity Management or Service Monitoring	RA	CI
	Application install and configuration (e.g., I.E. IIS, Apache)	CI	RA
OSM004: Spooling And Printer Management (Applies Only When Sap Services Are Purchased)	Delete print jobs/spool on request	RA	CI
	Add new printers for inoperability with SAP	RA	CI
	Remove printers from the SAP system as requested	RA	CI
	Modify printers for inoperability with SAP	RA	CI
	Provide the proper SAP print reorganization and maintenance jobs are run according to SAP best practice	RA	CI
OSM006:	Add OS level parameters for compliance with OS vendor best practices	RA	CI

Service Name	Service Description		Virtustream	SBBC
House Keeping	Delete OS level parameters for compliance with OS vendor best practices		RA	CI
	Modify OS level parameters for compliance with OS vendor best practices		RA	CI
	RDBMS vendor relationship, SBBC provided		I	RAC
	RDBMS vendor relationship, Virtustream provided		RAC	I
OSM007: Operations Management	Stop and start of the operating system, system services and processes		RA	CI
OSM008: Scheduling	Setup scheduled jobs as requested		RA	CI
	Delete scheduled jobs as requested		RA	CI
	Modify scheduled jobs as requested		RA	CI
OSM008: Scheduling (applies only when SAP services are purchased)	Setup batch jobs as requested by users		RA	CI
	Reschedule, pause or delete predefined batch jobs on request		RA	CI
	Report failed batch jobs		RA	CI
	Maintain Basis related system batch jobs		RA	CI
OSM009: Performance Management	Performance analysis, tuning, maintenance and implementation of recommended solutions		RA	CI

RACI for Database Management

DB #	Role/Function	SAP		NON SAP		Service Code
		Virtustream	SBBC	Virtustream	SBBC	
1.0	**System level Database Management - SQL/Oracle**					
1.1	Installing new database versions	R/A	C	R/A (at SBBC's option)	R/A (at SBBC's option)	DBM004
1.2	Applying publically available maintenance fixes supplied by the database vendor	R/A	C	R/A	C	PMM002

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DB #	Role/Function	SAP		NON SAP		Service Code
		Virtustream	SBBC	Virtustream	SBBC	
1.3	Setting and tuning system parameters	R/A	C	R/A	C	DBM004
1.4	Ensuring proper storage is available for databases	R/A	C	R/A	C	DBM001
1.5	System level Strategy Determination	R/A	C	R/A	C	DBM004
1.6	System Level planning and management	R/A	C	R/A	C	DBM004
1.7	System level implementations or installations	R/A	C	R/A	C	DBM004
1.8	Recommendation for System level tuning of the database parameters	R/A	C	R/A	C	DBM005
1.9	System level database monitoring and management	R/A	C	R/A	C	AVM001
1.10	System Level database recovery activities	R/A	C	R/A	C	DBM007
1.11	Perform Database System storage Capacity Management and provide estimates for the storage necessary to support the Database Systems	R/A	C	R/A	C	DBM001
1.12	Implement and administer system level components of the data archiving processes for the Database Systems	R/A	C	R/A	C	
1.13	Establish, manage and maintain authentication IDs and privileges	R/A	R/A	C	R/A	DBM002
1.14	Provide role-based access to Authorized Users to the Database Systems	C	R/A	C	R/A	DBM002
1.15	Develop security and access profiles and procedures for Database System administrators	R/A	R/A	C	R/A	DBM002

DB #	Role/Function	SAP		NON SAP		Service Code
		Virtustream	SBBC	Virtustream	SBBC	
1.16	Develop and maintain scripts, utility jobs and automated processes necessary to maintain the Database Systems	R/A	C	R/A	C	DBM004
1.17	Alert log monitoring	R/A	C	R/A	C	AVM003
1.18	Trace files / logs cleanup	R/A	C	R/A	C	DBM006
1.19	Alert log file rotation	R/A	C	R/A	C	DBM006
1.20	Database backup monitoring (full/incremental/archive)	R/A	C	R/A	C	AVM003
1.21	Create Tablespace usage report	R/A	C	R/A	C	DBM005
1.22	Create Invalid Objects report	R/A	C	R/A	C	DBM005
1.23	Create New Object Creation Report	R/A	C	R/A	C	DBM005
1.24	Create Fragmented Object Report	R/A	C	R/A	C	DBM005
1.25	Create report on database usage statistics	R/A	C	R/A	C	DBM005
1.26	Create new DB instance	R/A	C	C	R/A	DBM003
1.27	Manage online redo logs or archive logs	R/A	C	R/A	C	DBM006
1.28	Stop & Start Services (Automate)	R/A	C	R/A	C	DBM005
2.0	**Backup/Restore**					
2.1	Develop, test, and implement logical backup/recovery strategy	C	R/A	C	R/A	
2.2	Develop, test, and implement System Level backup/recovery strategy	R/A	C	R/A	C	DBM006
2.3	System Level backup/Restore monitoring	R/A	C	R/A	C	AVM001, DBM006
2.4	Logical backup/Restore monitoring	R/A	C	R/A	C	AVM001, DBM006

DB #	Role/Function	SAP		NON SAP		Service Code
		Virtustream	SBBC	Virtustream	SBBC	
2.5	Produce System level backup/Restore implementation and operational procedures	R/A	C	R/A	C	DBM006
2.6	Produce logical backup/Restore implementation and operational procedures	C	R/A	C	R/A	
3.0	**Database Monitoring Tasks (Events Monitored)**					
3.1	Connect check	R/A	C	R/A	C	AVM001
3.2	Connect DB	R/A	C	R/A	C	AVM001
3.3	Listener status	R/A	C	R/A	C	AVM001
3.4	Instance status	R/A	C	R/A	C	AVM001
3.5	RAC member status	R/A	C	R/A	C	AVM001
3.6	Data file cannot extend	R/A	C	R/A	C	AVM001
3.7	Free space in Tablespace	R/A	C	R/A	C	AVM001
3.8	Free space deficit	R/A	C	R/A	C	AVM001
3.9	DBA - locks	R/A	C	R/A	C	AVM001
3.10	License limit	R/A	C	R/A	C	
3.11	Process limit	R/A	C	R/A	C	AVM001
3.12	ASM DG group	R/A	C	R/A	C	AVM001
3.13	Performance management & performance trends	R/A	C	R/A	C	AVM001
4.0	**Logical/Application DBA**					
4.1	Database design for a specific application	C	R/A	C	R/A	SBBC staff to support these functions
4.2	Writing and debugging SQL code	C	R/A	C	R/A	
4.3	Logical strategy determination	C	R/A	C	R/A	
4.4	Logical planning and management	C	R/A	C	R/A	

DB #	Role/Function	SAP		NON SAP		Service Code
		Virtustream	SBBC	Virtustream	SBBC	
4.5	Logical implementation or installations	C	R/A	C	R/A	
4.6	Recommendation of logical tuning database parameters	C	R/A	C	R/A	
4.7	Logical database monitoring and management	C	R/A	C	R/A	
4.8	Develop and maintain scripts, utility jobs and automated processes necessary to maintain the logical databases	R/A	R	C	R/A	
4.9	Implement and administer logical components of the **data** archiving processes for the Database Systems	C	R	C	R/A	
4.10	Logical database recovery activities	C	R	C	R	
4.11	Manage and track database administration authentication IDs and privileges assigned to DBA team members for auditing compliance	R/A	R/A	I	R/A	
4.12	Establish and maintain security and access procedures for Database System administrators to meet audit requirements	R/A	R/A	I	R/A	

RACI FOR SAP BASIS MANAGEMENT

Tasks	Virtustream	SBBC	Comment
System Management			
SAP transport	R,A	I	
Resolution of Incident/Service tickets	R,A	R	
Printer definition	R,A	R	
Printer and output troubleshooting	R,A	C	
OSS note application	R,A	C	

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Tasks	Virtustream	SBBC	Comment
OSS connection management	R,A	C	
Management and implementation of enhancement packs	R,A	R	Provided at Virtustream's time and materials rates
Nimsoft alert definitions	R,A	C	
Nimsoft alert setup	R,A	C	
Monitor system logs for errors and warnings.	R,A		
Monitor user activity and work process status.	R,A		
Monitor background jobs.	R,A	I	
Troubleshoot and resolve system background job issues.	R,A		
Troubleshoot and resolve functional/business application background job issues.	C	R,A	
Monitor lock entries.	R,A		
Monitor abnormal program failures.	R,A	C	
Monitor update failures.	R,A	C	
Monitor Transport Management System.	R,A		
Monitor communication channels (RFCs, ICM, Message Server, etc.)	R,A		
Troubleshoot and resolve system issues.	R,A	I	
Monitor and tune system performance.	R,A	C	
Monitor for performance issues and bottlenecks in application code.	R,A	I	
Perform application code tuning.	C	R,A	
Batch job monitoring and management (per documented process)	R,A	R,C	
Interface scheduling and monitoring (per documented process)	R,A	R,C	
Manage short dumps	R,A	C,I	
System log file analysis/management/resolution	R,A	C,I	
Application administration & troubleshooting	R,A	C,I	
Application patches update	R,A	C	

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Tasks	Virtustream	SBBC	Comment
SAP client maintenance	R,A	C,I	
Shift handover / KT of new VS resource	R,A	C,I	
Planning of SAP system/landscape	R,A	R,A	
Perform application startup and shutdown.	R	A	
Operating System Administration			
Monitor CPU and memory utilization.	R,A	I	
Monitor file system usage.	R,A	I	
OS patches update	R,A	C,I	
Troubleshoot and resolve operating system issues.	R,A	I	
Output Management			
Monitor spool system for errors.	R,A	I	
Troubleshoot and resolve system printing issues.	R,A	I	
Troubleshoot and resolve site printing issues.	C	R,A	
Setup and test system printers.	R,A	C	
Setup and test site printers.	C	R,A	
Client and Change Management			
Perform client and system copies.	R	A	
Manage transport management system configuration.	R	A	
Apply transports and migrate configuration and code changes.	R	A	
Software Management			
Document software versions and end of support dates.	R,A	I	
Apply SAP software updates (e.g., support packages, kernel, etc.)	R	A	As requested quarterly
Apply database software updates (e.g., service packages, etc.)	R	A	
Apply OS software patches and updates	R	A	
Install new applications and software components.	R	A	Performed pursuant to a new SOW agreed to by the parties

RACI FOR PATCH MANAGEMENT

Role/Function	Virtustream	SBBC	Service Code
Automated Patching/scheduling (OS)	R,A	I,C	PMM001
Patch notification (OS)	R,A	I,C	PMM001
Patch staging - non-critical (OS)	R,A	I,C	PMM002

RASCI FOR INCIDENT MANAGEMENT

Role/Function	Virtustream	SBBC
Document, track and manage all Incidents using ITSM system (ITIL methodology/practices)	R/A	S
Perform Incident management related services necessary to meet Service Levels	R/A	S
Assign Incident priority based on impact and standards set forth above	R/A	S
Provide method of collaboration to address high priority Incidents (e.g. P1 bridge)	R/A	S
Communicate to SBBC on the progress made to resolve Incidents and applicable work-arounds	R/A	S
Provide recommendations to avoid the reoccurrence of Incidents, develop and update knowledge base articles	R/A	S

RACI FOR SERVICE REQUESTS

Role/Function	Virtustream	SBBC
Service Request Fulfillment		
Document, track and manage all Service Requests using ITSM system	R/A	S
Manage Service Requests to meet Service Levels	R/A	I
Obtain Virtustream internal approvals as needed	R/A	I
Obtain approvals from SBBC based on possible impact from a requested change based on Virtustream's risk assessment	R/A	S
Notify SBBC if unable to fulfill Service Request to meet Service Levels	R/A	I

RASCI FOR PROBLEM MANAGEMENT

Role/Function	Virtustream	SBBC
Request Root Cause Analysis tickets by contacting the Virtustream TAMS (SBBC requests Incident report/Problem record)	S	R/A
Document, track and manage all Problem tickets using ITSM system	R/A	S
Provide Problem management review and Root Cause Analysis (RCA) for all in-scope P 1 Incidents (preliminary report within 48 hours; final within 15 calendar days)	R/A	S
Provide Problem management and RCA of identified Problems (e.g., reoccurring events, alerts) - investigate and diagnose	R/A	S

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EXHIBIT 3
SERVICE LEVEL AGREEMENT

1.   DEFINITIONS

For the purpose of this Service Level Agreement, the following terms shall have the corresponding definitions:

"Availability" means the period in a month that the Services are available, excluding Scheduled Downtime and shall be calculated as follows:

Availability = Maximum Availability – Unscheduled Downtime /Maximum Availability x 100

"Incident" means a report issued to Virtustream by SBBC informing Virtustream that the Services are experiencing a Service Failure.

"Maximum Availability" means the total number of minutes in a calendar month, less the Scheduled Downtime.

"Scheduled Downtime" means, the number of hours during a month for which the Services are scheduled to be unavailable in order for Virtustream to perform maintenance or other scheduled services.

"Service Level" means the Availability of the Service in a calendar month.

"Unscheduled Downtime" means the inability of SBBC to access the Services as a result of an Incident due to a cause within the control of Virtustream; provided, however, an application server instance being unavailable shall not be considered a Service Failure if the application environment is still available.

2.   INCIDENT PRIORITIZATION

All Incidents that are reported to Virtustream or that Virtustream otherwise becomes aware of will initially be assigned a priority by Virtustream as set forth below. Internal escalation for Incidents resources shall be determined by Virtustream based on the priority level assigned to the Incident by Virtustream. The priority/severity level may be adjusted as agreed to by the parties.

Priority/ Severity	Definition	Time to Respond [Note 1]	SBBC Communication Interval	Level of Effort
1	Major part of the Services is unavailable/not operating correctly, affecting multiple users. No workarounds are in place, and business operations are not possible. OR Incident has a critical impact on the business (e.g., loss of the Exchange production server impacting all users).	30 minutes	Every 30 minutes	Immediate and continuous effort until the issue is resolved or a workaround is developed
2	Part of the Services is unavailable/not operating correctly, affecting users in a single function. No workarounds are in place, and business operations in	60 minutes	Every 60 minutes	Continuous effort until the issue is resolved or a workaround is developed

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	this function are not possible/severely impacted. OR Incident has a serious impact on part of the business (e.g., a configuration change is impacting a small subset of users).			
3	Part of the Services is unavailable/not operating correctly, affecting users in a single function. Workarounds are in place, but business operations are impacted, although not severely. OR Incident has a temporary impact on users and is non-critical or is a development issue (e.g., email is slow to deliver).	4 hours	Updates provided as available	Work until issue is resolved or a workaround is developed during business hours
4	Incident that is causing inconvenience to the business, but not impacting operations. OR Incident has a minor impact on users or business, or issue is a request for further information.	1 US business day	Not applicable	Will be addressed during the next general update to the services

Note 1: Time to Respond is measured as the time between the proper notification of an Incident, and the Incident being acknowledged within the Service Management System.

3. SERVICE LEVEL CREDITS

Virtustream shall provide SBBC with the Service Level Credit if the Services fail to satisfy any of the Service Levels set out herein. The Service Level shall commence thirty (30) days following commencement of the Steady State phase of the SOW. Each of the Service Level Credits shall be based on the fees paid for the applicable service, as set out in this SOW. The aggregate Service Level Credits for all Service Levels in any month shall not exceed 15% of the total monthly recurring charges ("MRCs") for such month set out in Exhibit 1, above. The Service Level Credit shall be SBBC's sole and exclusive remedy and Virtustream's sole and exclusive liability for Unscheduled Downtime.

3.1 *Cloud Platform Services - Core and Basic µVM Service Level Credits (including vHANA)*

µVM	µVM	µVM	µVM	µVM Availability on DMZ Core VM	µVM Availability on DMZ Basic VM	
99.95% – 99.999%		99% - 99.5%		99.5% - 99.9%	99% - 99.4%	1%
99.5% - 99.94%		98% - 98.99%		98% - 99.5%	98% - 99%	3%
95% - 99.4%		95% - 97.99%		95% - 98%	95% - 98%	5%
90% - 94.99%		90% - 94.99%		90% - 95%	90% - 95%	10%
Below 90%		Below 90%		Below 90%	Below 90%	15%

Note 2: The Service Level Credit shall be calculated based on the applicable MRCs paid for the Core and Basic µVM and related products set out in Exhibit 1 to the SOW

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3.2   *Application Managed Services*

3.2.1 SAP Support Service Credits

Provided that the SBBC is subscribed to Virtustream's AMS SAP Support service, and subject to any Service Level Exception, Virtustream will provide to SBBC the service level credits indicated below for the availability of SAP applications.

Service Level (SAP Application Production)	Service Level Credit [Note 3]
99.85% – 99.90%	1%
99.75% - 99.84%	3%
99.50% - 99.74%	5%
99.30% - 99.49%	7%
99.00% - 99.29%	10%
<99.00%	15%

Service Level (SAP Application Non-Production)	Service Level Credit [Note 3]
99.10% - 99.40%	1%
98.70% - 99.09%	3%
98.30% - 98.69%	5%
97.90% - 98.29%	7%
97.50% - 97.89%	10%
< 97.50%	15%

Note 3: The Service Level Credit shall be calculated based on the applicable MRCs paid for the Application Managed Services and related products set out in Exhibit 1, above.

3.2.2   SAP System Application Response Times

Monthly **Production** Average SAP Dialog Response time, as measured by transaction ST03N, will be less than 1,000 milliseconds, excluding custom programs and transactions usually referred to as Z-programs. SBBC must be using Tier 1 storage and Enterprise Core uVMs for the Production environment.

4   SERVICE LEVEL CREDIT POLICIES

In the event of Unscheduled Downtime, Virtustream shall promptly address such failure as provided herein:

- If a single Incident results in Virtustream's failure to meet more than one Service Level, SBBC shall receive only the highest one of the multiple Service Credits applicable to such Service Level defaults. This shall not affect the SBBC's entitlement to Service Credits, as applicable, for any other Service Level defaults that have a root cause other than the specific Incident referred to above.
- Virtustream will credit any Service Level Credit against the charges otherwise payable by SBBC to Virtustream for the applicable Services on the next invoice. If no further charges are due and owing to Virtustream, Virtustream shall pay to the SBBC the applicable Service Level Credit within forty-five (45) calendar days of the date such credit was incurred.
- If SBBC's accounts receivable balance for the Services is not current in the month in which the Service Failure occurred, SBBC shall not be entitled to a Service Level Credit and Virtustream will be excused for its failure to meet the Service Level.

Virtustream shall not be liable for any failure to meet the Service Levels to the extent that one or more of the following caused such failure:

- Failure of the SBBC (including any of the SBBC's third party service providers) to perform any of its responsibilities under the Agreement or SOW;
- Any act or omission of the SBBC (including the SBBC's third party service providers), including the SBBC's lack of email or telephone availability or delays due to lack of the SBBC's response;
- Failure of the SBBC's hardware, software, product or equipment;
- Failure of the SBBC to secure the proper access rights or maintenance and support services with respect to any component of the Services (e.g., hardware, software, network, maintenance) that does not fall under Virtustream's scope of services that are contracted with the SBBC;
- Scheduled Downtime, emergency maintenance or a Force Majeure event;
- SBBC's reprioritization of the tasks to be performed by Virtustream where such reprioritization causes Virtustream to miss a Service Level;
- Viruses, provided that the infected Virtustream-provided Services had virus protection for which the virus protection software updates were current;
- Against the advice of Virtustream, the SBBC elected to purchase a base commitment to the Services that is not sufficient to run the SBBC's system;
- Claims of performance degradation not substantiated through SBBC provided diagnostic testing results;
- Failure to meet Service Levels while operating under a business continuity or disaster recovery plan dependent upon SBBC contract;
- Failures outside the In-Scope environment;
- Infringements of third-party proprietary rights; and
- Resolution delays due to lack of SBBC response, including delays resulting from SBBC not providing access or login credentials to access non-Virtustream systems relevant to providing a resolution,, in which case the measurement time shall be suspended for the period of the delayed response.

6.   **RESPONSE TO UNSCHEDULED DOWNTIME**

In the event of Unscheduled Downtime, Virtustream shall promptly address such failure as provided herein:

- Promptly investigate and report on the causes of such problem based on the assigned severity level;
- Upon Virtustream's determination of the cause of such failure, it will provide to SBBC a preliminary report citing the cause of such failure.
- If Virtustream determines that the failure was due to Virtustream and it is a 'Priority 1' (P1) Incident, then Virtustream will provide a root cause analysis (RCA) as soon as practical after such failure
- Workarounds or fixes are provided for Incidents categorized as P2, P3, or P4, but no RCA will be provided
- Correct or undertake remedial efforts such Service Failure that is Virtustream's fault or responsibility as provided herein;
- Advise SBBC of the status of remedial efforts being undertaken with respect to such problem;
- Demonstrate that the causes of such problem (if due to Virtustream's fault or responsibility) has been, or shall be, corrected.
- If applicable, Virtustream will take long-term corrective action using reasonable commercial efforts to minimize the re-occurrence of such failure to prevent any recurrence of such problem (that is Virtustream's fault or responsibility).

EXHIBIT 4

ʌvirtustream.(MSA)

MASTER SERVICES AGREEMENT

This Master Services Agreement (the "**Agreement**") is made and entered into this ___ day of _____, 2017 (the "**Effective Date**") by and between Virtustream, Inc. ("**Virtustream**"), with offices located at 117 South Street, Hopkinton, Massachusetts 01748 and The School Board of Broward County, Florida with offices located at 600 Southeast 3rd Avenue, Fort Lauderdale, Florida 33301 ("**SBBC**").

1. DEFINITIONS

For the purpose of this Agreement, the following terms shall have the corresponding definition:

"*μ VM*" *(*pronounced "micro VM") means Virtustream's unit of measurement designed to measure the actual consumption of the Cloud Platform as set out in an SOW, based on CPU, memory, storage input/output operations per second (IOPS), and associated local network bandwidth with the usage of each μVM resource component measured at five minute intervals— one unit each for 200MHz of CPU, 768MiB of memory, 40 storage IOPS, and 2Mbps of local network bandwidth – and the highest of the four is averaged per hour and the hour values averaged across the month to determine the overall μVM usage for each month.

"**Affiliate**" means an entity that Controls, is Controlled by or is under common Control with a party;

"**Application Managed Services**" means the management of the Cloud Platform and applicable applications identified in an SOW, as further described in the Cloud Services Descriptions.

"**AUP**" means Virtustream's acceptable use policies for the Cloud Services located at http://www.virtustream.com/use-policy.

"**Cloud Platform**" means the infrastructure as a service offering, including all of the products and components thereof identified in an SOW.

"**Cloud Services**" means the Cloud Platform and Application Management Services that are identified in an SOW.

"**Cloud Services Descriptions**" means the then current descriptions of the Cloud Services.

"**SBBC Zone**" means SBBC's tenant space on the Cloud Platform in which SBBC accesses the Cloud Platform and stores SBBC Data to submit to the Cloud Platform.

"**Data Privacy Laws**" means all applicable laws, regulations, regulatory guidance and rules concerning the use or processing of personal identifiable information of an individual.

"**Data Protection Schedule**" or "**DPS**" means the Data Protection schedule set out in **Appendix A.**

"**Disengagement Assistance SOW**" means the statement of work entered into by and between the parties that describes the Disengagement Services to be provided by Virtustream.

"**Disengagement Services**" means the services that may be performed following termination of an SOW to assist SBBC with the transitioning of the Cloud Services to SBBC or to a third-party service provider as further set out in this Agreement and a Disengagement Assistance SOW.

"**End Users**" mean SBBC's employees, contractors, agents or other third parties who utilize or access the Cloud Platform on behalf of SBBC.

"**Personal Data**" means personally identifiable information of an individual, including: (1) any information that can be used to distinguish or trace an individual's identity, such as name, social security number (or similar government issued document), date and place of birth, mother's maiden name, or biometric records; (2) driver's license number; and (3) any other personal information that is linked or linkable to an individual, such as medical, educational, financial (credit card, bank account, debit card) and employment information.

"Professional Services" means onboarding and consulting services to be provided by Virtustream, as defined in an SOW, including the installation of the applications identified in an SOW.

"SBBC Data" means information that is stored by or on behalf of SBBC in the SBBC Zone.

"SBBC Marks" means SBBC's trade name, trademarks and logos.

"SBBC Material" means hardware, software, SBBC Data and any other materials and information of SBBC that are used by SBBC in connection with the Cloud Services.

"Security Incident" means any unauthorized or unlawful access to SBBC Data in the Cloud Platform.

"Services" means the Cloud Services and the Professional Services.

"Services Term" means the initial services term and any subsequent renewal term.

"SLA" means the service level agreement for the Cloud Services set forth in an SOW.

"SOW" means a statement of work executed by the parties that describes the Services to be provided to SBBC by Virtustream.

"Taxes" means all sales, use, excise, value added, goods and services, import duties and other similar or related taxes or withholdings that are imposed on the Services; provided, however, Taxes shall exclude any taxes based on Virtustream's net income.

"Territory" means the territory identified in the SOW where Virtustream's data centers providing the Cloud Services are located and from where SBBC may store and submit SBBC Material to the Cloud Platform.

"VM" means a virtual machine.

"Warranty Period" means the thirty (30) day period following the performance of applicable Professional Services.

2. SERVICES

Virtustream grants SBBC a non-exclusive, non-transferable right to access and use the Services during the Services Term, subject to the terms of this Agreement and each SOW. Virtustream will provide the Cloud Services to SBBC in accordance with the SLA. Except for the right to use or receive the Services as set out herein, this Agreement does not grant SBBC any right to the Services or any product or tool used in delivery of the Services, including to any intellectual property or any other rights or licenses therein, and Virtustream and its third-party providers reserve all rights not granted herein. Each SOW entered into by the parties that reference this Agreement shall be incorporated herein and shall be subject to this Agreement; provide, however, that each SOW shall be deemed a separate and distinct contract and a breach under one SOW shall not be deemed a breach under any other SOW.

3.   PAYMENT

3.1   *Fees*

SBBC shall pay to Virtustream the fees set forth in each SOW. SBBC shall reimburse Virtustream for all travel related expenses incurred by Virtustream in the performance of the Services as provided in an SOW. Except as otherwise stated in an SOW, the fees due hereunder shall be invoiced as follows and shall be due thirty (30) days following date of invoice ("**Due Date**"): (A) the one-time charges shall be invoiced upon the execution of the SOW; (B) the fees for Professional Services and the minimum monthly recurring charges ("**MRCs**") shall be invoice monthly in arrears in the month following the performance of such Services; and (C) the fees resulting from any increase in μVMs consumed or any other applicable quantity in any month shall be invoiced in arrears in the month following such increased usage. Any amount not received by the Due Date shall be subject to interest at the lesser of 1% per month or the highest rate permitted by applicable law.

3.2   *Taxes*

SBBC is a political subdivision of the State of Florida and is tax exempt. SBBC shall provide Virtustream with a valid tax-exempt certificate.

3.3   *Legal Costs*

Any reasonable costs and fees incurred by Virtustream in the performance of its obligations by virtue of its role as the provider of the Services, including compliance with subpoenas, court orders, discovery requests and disputes related to SBBC Materials, arising solely between SBBC and any third party, such as disputes concerning a release of SBBC Material or Confidential Information, as defined below, shall, unless otherwise agreed to in writing by the parties, be paid by SBBC.

3.4   **Payment Dispute**

If SBBC disputes in good faith any fees for Services identified in an invoice, SBBC shall inform Virtustream of the nature of the dispute by the Due Date and shall identify in reasonable detail the nature of such dispute. SBBC may withhold payment of the amount validly in dispute, provided, however, SBBC shall continue to pay undisputed amounts in accordance with this Agreement. The parties shall work in good faith to promptly resolve such good faith dispute. Upon resolution of the dispute, SBBC shall pay Virtustream the applicable fees. If the dispute remains outstanding for thirty (30) days past the Due Date, Virtustream may seek to resolve the dispute through the dispute resolution proceedings set out in this Agreement.

4.   **SBBC OBLIGATIONS**

4.1   *Use of Services*

Except as otherwise provided in an SOW, the Cloud Services shall only be used for the internal use and benefit of SBBC. All use of the Cloud Services by SBBC, including its End Users, shall be in accordance with this Agreement and any and all SOWs and shall comply with the AUP. Prior to permitting any third-party End Users to access and use the Cloud Services, SBBC shall require such third party End Users to agree in writing to only use the Cloud Services on behalf of SBBC in accordance with this Agreement and any applicable SOW and to maintain all Virtustream Confidential Information in strict confidence on terms no less restrictive than those agreed between Virtustream and SBBC. SBBC shall be liable for any breach of this Agreement or any SOW by End Users.

4.2   *Open Source*

SBBC will not use and will not authorize any End User to use any open source software in connection with the Services in any manner that requires, pursuant to the license applicable to such open source software, that any Virtustream Confidential Information or the Services be (A) disclosed or distributed in source code form, (B) made available free of charge to recipients, or (C) modifiable without restriction by recipients.

4.3   *SBBC Materials*

SBBC represents and warrants that it: (A) owns or has the right to use all SBBC Materials and submit such SBBC Materials to the Cloud Services; and (B) has all necessary licenses and permissions for usage of any third-party software to be supplied or provided by SBBC to Virtustream as set out in an SOW or otherwise used in connection with the Services. SBBC hereby grants to Virtustream the right to use all SBBC Materials and third-party software solely for the purposes of this Agreement and the performance of Virtustream's obligations hereunder.

4.4   **SBBC Zone; Network Connections**

SBBC shall be responsible for implementing, maintaining and securing any applicable networking necessary to support a site-to-site VPN tunnel, MPLS connection or other dedicated connection between Virtustream and SBBC facilities, as required for SBBC to access the Cloud Platform. In addition, except as otherwise stated in an SOW, SBBC shall be solely responsible for all SBBC Materials stored or submitted to the SBBC Zone and deploying, implementing, maintaining and measuring security in the SBBC Zone as well as compliance with all applicable security and privacy laws, rules and regulations in any applicable regions or countries regarding SBBC Materials.

5.   DATA PRIVACY

Each party shall comply with the requirements of the Data Protection Schedule to the extent such requirements are applicable to a party, the Services and in accordance with all state and federal law.

6.   TERM AND TERMINATION

6.1   Term of Agreement

This Agreement commences on the Effective Date, and shall remain in effect until terminated as set forth herein.

6.2   Services Term

Each SOW shall set forth the initial services term and, unless otherwise provided in an SOW, such term shall automatically renew for successive twelve (12) month terms unless either party provides written notice of non-renewal to the other party no later than ninety (90) days prior to the expiration of the then-current Services Term.   Upon occurrence of each renewal of the Services Term and subject to an SOW, the fees for the Services are subject to change upon written notice to SBBC by Virtustream.

6.3   *Termination for Cause*

Either party may terminate this Agreement or an SOW upon thirty (30) days written notice to the other party in the event of a material breach of this Agreement or such SOW by the other party if such breach is not cured within such thirty (30) day period or an additional period of time as may be agreed to by the parties.

6.4   *Termination for Convenience*

This Agreement may be canceled with or without cause by SBBC during the term hereof upon thirty (30) days written notice to the other parties of its desire to terminate this Agreement. SBBC shall have no liability for any property left on SBBC's property by any party to this Agreement after the termination of this Agreement. Any party contracting with SBBC under this Agreement agrees that any of its property placed upon SBBC's facilities pursuant to this Agreement shall be removed within ten (10) business days following the termination, conclusion or cancellation of this Agreement and that any such property remaining upon SBBC's facilities after that time shall be deemed to be abandoned, title to such property shall pass to SBBC, and SBBC may use or dispose of such property as SBBC deems fit and appropriate.

6.5   *Suspension of Cloud Services*

Notwithstanding anything to the contrary set out herein, Virtustream may, in its sole option and in lieu of termination of this Agreement or an SOW, suspend performance of the Cloud Services if SBBC is unable to resolve any material breach of this Agreement or an SOW. Virtustream shall, to the extent applicable, suspend performance of the Cloud Services on the most limited basis as Virtustream determines is reasonably practical under the circumstances to address the underlying material breach. Virtustream shall use reasonable commercial efforts to notify SBBC prior to suspending the Cloud Services; provided, however, Virtustream may suspend service without notice if Virtustream becomes aware of a violation of any applicable law or regulation or activity, that may expose Virtustream to criminal or civil liability or that may expose the Virtustream infrastructure, network or services to harm.

6.6   *Effect of Termination; Survival*

Upon termination of this Agreement, each SOW shall immediately terminate, Virtustream shall cease performance of the Services and SBBC shall cease use of the Cloud Services. SBBC hereby authorizes Virtustream to delete the SBBC Materials stored in the Cloud Service following expiration or termination of this Agreement or an applicable SOW. SBBC shall also promptly return or destroy any Confidential Information of Virtustream in its possession. In addition, upon termination, SBBC shall pay for Services performed prior to the effective date of termination. The following Sections shall survive termination of the Agreement indefinitely or to the extent set out therein: Sections 3-10 and 12.

6.7   *Disengagement Services*

Following termination of this Agreement or an SOW, SBBC may engage Virtustream to provide Disengagement Services, subject to the terms set forth in a Disengagement Assistance SOW.   The Disengagement Services may include any or all of the Cloud Services previously provided by Virtustream for the term of the Disengagement Assistance SOW; provided, however, any tools

utilized in the performance of the Cloud Services (such as Virtustream or third-party software) shall at all times be subject to applicable licensing requirements (which may require SBBC to secure licenses to use software independent of the Cloud Services). The Disengagement Services shall not include any requirement that Virtustream: (A) incur or perform any uncompensated expenses or services; (B) instruct SBBC (or any SBBC retained third party) how to perform services in the same manner as the Cloud Services; or (C) permit SBBC (or any SBBC retained third party) to use Virtustream's intellectual property.

7. WARRANTIES

7.1 *General*

Virtustream represents and warrants that all Professional Services shall be provided in a professional and workmanlike manner in accordance with generally accepted industry standards.

7.2 *Obligations*

If the Professional Services fail to comply with the warranty set out in Section 7.1 above, during the Warranty Period SBBC shall notify Virtustream in writing of the allegedly non-conforming Professional Service, setting out with reasonable specificity the alleged non-conformity and reasonable requirements for compliance based on the terms of the SOW. Upon such notice, Virtustream shall promptly re-perform such Professional Services or correct the non-conforming components of the Professional Services in accordance with this Agreement and the SOW. If, during the Warranty Period, Virtustream is unable to successfully re-perform the Professional Services within thirty (30) days following notice from SBBC, or an additional time as agreed to by the parties, Virtustream shall, as SBBC's sole and exclusive remedy, refund to SBBC the portion of the fees paid for the non-compliant Professional Services.

7.3 *Disclaimer of Warranties*

EXCEPT FOR THE WARRANTIES SET OUT HEREIN AND AS REQUIRED BY LAW, THE SERVICES ARE PROVIDED "AS IS" AND VIRTUSTREAM EXPRESSLY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF DEALING OR COURSE OF PERFORMANCE. VIRTUSTREAM DOES NOT WARRANT THAT THE CLOUD SERVICES WILL BE FREE FROM LOSS OR LIABILITY INCLUDING ARISING OUT OF ANY THIRD-PARTY TECHNOLOGY, THIRD PARTY ACTION, SUCH AS UNAUTHORIZED ACCESS BY ANY THIRD PARTY, OR ANY ACT OR OMISSION OF SBBC, INCLUDING SBBC'S FAILURE TO ENCRYPT. VIRTUSTREAM EXPRESSLY DISCLAIMS ANY WARRANTY OR LIABILITY WITH RESPECT TO COMPLIANCE WITH LAWS, RULES OR REGULATIONS APPLICABLE TO SBBC, WHICH SHALL BE THE SOLE RESPONSIBILITY OF SBBC. VIRTUSTREAM DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF SBBC MATERIALS OR ANY ADVICE, REPORT, DATA OR DELIVERABLES OBTAINED BY SBBC FROM THE SBBC MATERIALS SUBMITTED TO THE CLOUD PLATFORM, SUCH ADVICE, REPORTS, DATA OR DELIVERABLES ARE PROVIDED "AS IS" AND VIRTUSTREAM SHALL NOT BE LIABLE FOR ANY INACCURACY THEREOF. VIRTUSTREAM SHALL NOT BE RESPONSIBLE OR LIABLE FOR: (A) ANY DAMAGES IF, AND TO THE EXTENT, CAUSED BY SBBC'S FAILURE TO PERFORM ITS OBLIGATIONS, AS SET FORTH IN THIS AGREEMENT OR AN SOW; (B) ANY CORRUPTION, DAMAGE, LOSS OR MIS-TRANSMISSION OF SBBC MATERIALS, UNLESS SUCH TRANSMISSION IS THE RESPONSIBILITY OF VIRTUSTREAM; (C) DAMAGES OR LOSSES ARISING FROM ANY FAILURE OF SBBC TO ENCRYPT SBBC MATERIALS; OR (D) THE SECURITY OF SBBC MATERIALS DURING TRANSMISSION FROM SBBC'S FACILITIES TO THE CLOUD PLATFORM.

8. LIMITATION OF LIABILITY

EXCEPT FOR INDEMNIFICATION CLAIMS UNDER SECTION 9.1, 9.2(A), 9.2(B) AND CLAIMS ARISING FROM A BREACH OF A PARTY'S CONFIDENTIALITY OBLIGATIONS UNDER SECTION 10, NEITHER PARTY, NOR ANY OF ITS OFFICERS, DIRECTORS, EMPLOYEES OR OTHER REPRESENTATIVES OR AGENTS, SHALL BE LIABLE UNDER THIS AGREEMENT FOR INDIRECT, INCIDENTAL, PUNITIVE, SPECIAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THIS AGREEMENT, WHETHER OR NOT THE POSSIBILITY OF SUCH DAMAGES WAS DISCLOSED OR COULD HAVE BEEN REASONABLY FORESEEN. EXCEPT FOR INDEMNIFICATION CLAIMS UNDER SECTION 9, NEITHER PARTY'S AGGREGATE LIABILITY TO THE OTHER PARTY UNDER THIS AGREEMENT OR ANY SOW SHALL EXCEED THE FEES ACTUALLY PAID (OR PAYABLE) BY SBBC TO VIRTUSTREAM UNDER THE IMPACTED SOW DURING THE TWELVE (12)

MONTH PERIOD IMMEDIATELY PRECEDING THE EVENT WHICH IS THE SUBJECT OF THE CLAIM. THIS LIMITATION OF LIABILITY APPLIES REGARDLESS OF WHETHER LIABILITY IS BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, BREACH OF WARRANTIES, FAILURE OF ESSENTIAL PURPOSE OF THIS AGREEMENT OR OTHERWISE, OR ANY OTHER LEGAL THEORY.

9.   INDEMNIFICATION

9.1   General

Each party (the **"Indemnifying Party"**) shall indemnify, defend and hold the other party (the **"Indemnified Party"**) harmless from all losses, damages, costs and expenses incurred by the Indemnified Party resulting from third party claims arising from or related to: (A) the Indemnifying Party's gross negligence or willful misconduct; (B) bodily injury, including death, or damage to tangible property caused by the Indemnifying Party's negligence; or (C) the Indemnifying Party's failure to comply with laws applicable to the Indemnifying Party in connection with providing or consuming the Services.

9.2   Infringement

Virtustream shall, at its own expense, defend SBBC against any claim by a third party that the Services infringe any patent or trademark in the Territory or infringe or misappropriate any trade secret or copyright and pay the resulting costs and damages finally awarded against SBBC by a court of competent jurisdiction to the extent that such are the result of the third-party claim, or pay the amounts stated in a written settlement negotiated and approved by Virtustream.   If the Services are subject to a claim of infringement or in Virtustream's opinion are likely to become, the subject of such a claim, Virtustream shall, at Virtustream's option and expense: (A) procure for SBBC the right to continue to use the Service; (B) replace or modify such Service so that it becomes non-infringing while retaining substantially equivalent functionality; or (C) if Virtustream determines that none of the foregoing are commercially reasonable, terminate this Agreement and the applicable SOW and refund to SBBC the fees paid for the allegedly infringing Services by SBBC in the immediately preceding six (6) month period. Virtustream shall have no liability if the alleged infringement is based on: (1) combination of the Services with any products, services, items, or technology not provided by Virtustream, or any non-Virtustream products or services; (2) use of Service for a purpose or in a manner that is not permitted by the Agreement, or applicable SOW, and/or after Virtustream notifies SBBC to cease such use due to a possible or pending claim of infringement; (3) any modification to the Services not made by Virtustream; (4) any modifications made by Virtustream pursuant to SBBC's or an end-user's specific instructions; (5) any intellectual property right owned or licensed by SBBC (or any End User), including any SBBC Materials that SBBC or a third party provides, records on or utilizes in connection with SBBC's use of the Services and/or Virtustream's provision of the Services; or (6) violation by SBBC or an End User of the AUP. This section states SBBC's sole and exclusive remedy and Virtustream's entire liability for infringement claims related to the Services.

9.3   Process

The Indemnified Party shall promptly notify the Indemnifying Party of any claim. The Indemnifying Party shall have sole control over the defense of any such claim, including the settlement of such claim. The Indemnified Party shall reasonably cooperate with the Indemnifying Party at the Indemnifying Party's request and at the Indemnifying Party's cost.

10.   CONFIDENTIALITY AND PUBLICITY

10.1   Definition

"Confidential Information" means all confidential and proprietary information of either party (the **"Disclosing Party"**) that is disclosed to the other party (the **"Receiving Party"**), including but not limited to: (A) pricing proposals, financial and other business information, data processes and plans; (B) research and development information, analytical methods and procedures, hardware design, technology SBBC Materials (other than SBBC Data which shall be governed by the Data Protection Schedule); (C) business practices, know-how, marketing or business plans; (D) this Agreement, SOWs, Cloud Service Descriptions, and related documentation or materials; and (E) any other information identified in writing as confidential or information that the Receiving Party knew or reasonably should have known was confidential.

10.2   Obligation

During the term of this Agreement, each party may have access to Confidential Information of the other party. Confidential Information shall be used solely for each party's performance under this Agreement and the exercise of its rights hereunder. Neither party shall, without the prior written consent of the other party, use or disclose the Confidential Information of the other

party during the Services Term, and for five (5) years following the expiration or termination hereof. Each party will take all reasonable precautions to protect the other party's Confidential Information, using at least the same standard of care as it uses to maintain the confidentiality of its own Confidential Information but in no event less than reasonable care. Notwithstanding the foregoing, a party may disclose Confidential Information: (A) to any consultants, contractors and counsel who have a need to know in connection with this Agreement and have executed a reasonably protective non-disclosure agreement with the Receiving Party that is at least protective of Confidential Information as this Agreement; or (B) pursuant to legal process; provided that, the Receiving Party shall, unless legally prohibited, provide the Disclosing Party with reasonable prior written notice sufficient to permit it an opportunity to contest such disclosure. Confidential Information shall not include information which the Receiving Party can prove: (1) is or becomes public knowledge through no breach of this Agreement by the Receiving Party; (2) is received by Receiving Party from a third party not under a duty of confidence; or (3) is already known or is independently developed by the Receiving Party without use of the Confidential Information.

10.3   *Feedback*

Virtustream shall own any ideas, suggestions or other feedback that the SBBC may provide to Virtustream with respect to the Services and SBBC hereby assigns all right, title and interest to such feedback to Virtustream.

10.4   *Injunctive Relief*

Disclosing Party may be irreparably damaged if the obligations under this Section 10 are not enforced and Disclosing Party may not have an adequate remedy in the event of a breach by Receiving Party of its obligations hereunder. The parties agree, therefore, that Disclosing Party is entitled to seek, in addition to other available remedies, an injunction restraining any actual, threatened or further breaches of the Receiving Party's obligations under this Section or any other appropriate equitable order or decree. In addition, if a party believes that injunctive relief is necessary to preserve the status quo or prevent further harm under this Agreement, then a party may pursue such relief.

11.   MARKETING

Neither party shall authorize or assist another to, originate, produce, issue or release any written publicity, news release, marketing collateral or other publication or public announcement, relating in any way to this Agreement, without the prior written approval of the other party, which approval shall not be unreasonably withheld.

12.   CHOICE OF LAW

The laws of the state of Florida, United States, excluding its choice of law rules shall govern this Agreement. The United Nations Convention on Contracts for the International Sale of Goods and the Uniform Computer Information Transactions Act shall not apply to this Agreement. Any dispute arising under this Agreement shall be brought in a state or federal court located in Broward County, Florida. Neither party shall be entitled to bring any claim under this Agreement more than twenty-four (24) months after the cause of action upon which the claim is based arose.

13.   MISCELLANEOUS

13.1   Notices

All legal notices required to be given hereunder shall be in writing and deemed given if sent to the address set forth above: (A) by prepaid registered or certified U.S. mail, return receipt requested, three days after such mailing; or (B) by national overnight courier service, the next business day. All other notices (e.g., notice reminder of non-payment) may be sent via facsimile or email and will be deemed given on the day such notice is delivered. Notices to Virtustream shall be sent to Virtustream at the address identified above, attention Legal Department. Notices to SBBC shall be sent to the following:

To SBBC: Superintendent of Schools

                                    The School Board of Broward County, Florida

                                    600 Southeast Third Avenue

                                    Fort Lauderdale, Florida 33301

13.2   Assignment

SBBC shall not assign all or any part of this Agreement without the prior written consent of Virtustream, which consent will not be unreasonably withheld or delayed. Virtustream may, upon notice to SBBC, assign this Agreement to an Affiliate or to a third party that acquires all or substantially all of its assets or voting securities.

13.3   Waiver

No waiver of any breach of any provision of this Agreement by either party or the failure of either party to insist on the exact performance of any provision of this Agreement will constitute a waiver of any prior, concurrent or subsequent breach of performance of the same or any other provisions hereof, and no waiver will be effective unless made in writing.

13.4   Severability

If any provision is adjudged by a court of competent jurisdiction to be unenforceable, invalid or otherwise contrary to law, such provision shall be interpreted so as to best accomplish its intended objectives and the remaining provisions shall remain in full force and effect.

13.5   Independent Contractors

The parties hereto are and shall remain independent contractors and nothing herein shall be deemed to create any agency, partnership, or joint venture relationship between the parties. Neither party shall be deemed to be an employee or legal representative of the other nor shall either party have any right or authority to create any obligation on behalf of the other party. No right to SBBC retirement, leave benefits or any other benefits of SBBC employees shall exist as a result of the performance of any duties or responsibilities under this Agreement. SBBC shall not be responsible for social security, withholding taxes, contributions to unemployment compensation funds or insurance for the other party or the other party's officers, employees, agents, subcontractors or assignees.

13.6   Force Majeure

Neither party shall be liable for failing or delaying performance of its obligations (except for the payment of money) resulting from any condition beyond its reasonable control; provided that such excusal from performance shall last only so long as such condition exists or so long as the excused party has had a reasonable opportunity to mitigate and/or eliminate the effect of such condition, whichever period is shorter.

13.7   *Order of Precedence*

Except as otherwise agreed to by the parties, any conflict or inconsistency between any provisions of the applicable documents shall be resolved in accordance with the following order of precedence, with each item in the list taking precedence over those that follow it: (A) SOW; (B) Agreement; (C) Cloud Services Descriptions; and (D) AUP. Notwithstanding the foregoing, any conflict or inconsistency between any provisions of the applicable documents shall be resolved in accordance with the following order of precedence: (a) Sections 5, 7, 8, 9 and 10 of this Agreement shall take precedence over any conflicting term in this SOW unless the parties expressly agreed in writing to modify such provisions in an SOW.

13.8   *General*

This Agreement (A) shall be binding on and inure to the benefit of each of the parties and their respective permitted successors and assigns; (B) may be executed in counterparts, each of which will be deemed an original and all of which when taken together will constitute one and the same instrument; and (C) shall be construed as if both parties jointly wrote it. Any amendments or

modifications to this Agreement must be in writing, refer to this Agreement and be executed by an authorized representative of each party. The various section headings are inserted for convenience only and shall not affect the meaning or interpretation of this Agreement or any section thereof. This Agreement is not intended to benefit, nor shall it be deemed to give rise to, any rights in any third party.

13.9   Entire Agreement

This Agreement and any related Cloud Service Descriptions and SOWs, hereunder constitute the entire agreement between the parties with respect to the subject matter hereof, and supersede any and all prior or contemporaneous written or oral communications between the parties; provided, however, that any agreement whose principal purpose is to provide for confidentiality of information that has been entered into between the parties prior to the date hereof shall survive to the extent that it is not inconsistent with the terms and conditions of this Agreement. Variance from or additions to the terms and conditions of this Agreement in any purchase order or other written notification or documentation, from SBBC or otherwise, will be of no effect. Except as set forth herein, no other prior or contemporaneous covenants, promises, representations or warranties of any kind, whether written or oral, have been made or can be relied on by either party as an inducement to enter into this Agreement, whether relating to the tools, resources, practices or otherwise of any party hereto. SBBC will not rely on any reports, studies, specifications or similar documents which are not expressly made a part of this Agreement for any purpose including in connection with any warranty claim or to otherwise impose any obligation on Virtustream not expressly contained within this Agreement. Each party acknowledges that it does not rely on, and neither party shall have any right or remedy in respect of, any statement or representation other than as expressly set out in this Agreement. Neither this Agreement nor any SOW will be construed against the party that has prepared such Agreement or SOW, but instead will be construed as if both parties prepared the Agreement or SOW.

13.10   *No Waiver of Sovereign Immunity*

Nothing herein is intended to serve as a waiver of sovereign immunity by any agency or political subdivision to which sovereign immunity may be applicable or of any rights or limits to liability existing under Section 768.28, Florida Statutes. This section shall survive the termination of all performance or obligations under this Agreement and shall be fully binding until such time as any proceeding brought on account of this Agreement is barred by any applicable statute of limitations.

13.11   *Excess Funds*

Any party receiving funds paid by SBBC under this Agreement agrees to promptly notify SBBC of any funds erroneously received from SBBC upon the discovery of such erroneous payment or overpayment. Any such excess funds shall be refunded to SBBC.

13.12   *Annual Appropriation*

The performance and obligations of SBBC under this Agreement shall be contingent upon an annual budgetary appropriation by its governing body. If SBBC does not allocate funds for the payment of services or products to be provided under this Agreement, this Agreement may be terminated by SBBC at the end of the period for which funds have been allocated. SBBC shall notify Virtustream at the earliest possible time before such termination. No penalty shall accrue to SBBC in the event this provision is exercised, and SBBC shall not be obligated or liable for any future payments due or any damages as a result of termination under this section.

13.13   Convicted and Discriminatory Vendor Lists

In accordance with Sections 287.133 and 287.134 F.S., an entity or affiliate who is on the Convicted vendor List or the Discriminatory Vendor List may not perform work as a contractor, supplier, subcontractor or consultant under this Agreement. Virtustream must notify SBBC if it or any of its suppliers, subcontractors or consultants have been placed on the Convicted vendor List or the Discriminatory Vendor List during the term of the Agreement.

14.   PUBLIC RECORDS, TRADE SECRETS AND DOCUMENT MANAGEMENT

14.1   *Public Records*

The following provisions are required by Section 119.0701, Florida Statutes, and may not be amended. Virtustream shall keep and maintain public records required by SBBC to perform the services required under this Agreement. Upon request from SBBC's custodian of public records, Virtustream shall provide SBBC with a copy of any requested public records or to allow the requested public records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119,

Florida Statutes, or as otherwise provided by law. Virtustream shall ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement's term and following completion of the Agreement if Virtustream does not transfer the public records to SBBC. Upon completion of the Agreement, Virtustream shall transfer, at no cost, to SBBC all public records in possession of Virtustream or keep and maintain public records required by SBBC to perform the services required under the Agreement. If Virtustream transfers all public records to SBBC upon completion of the Agreement, Virtustream shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If Virtustream keeps and maintains public records upon completion of the Agreement, Virtustream shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to SBBC, upon request from SBBC's custodian of public records, in a format that is compatible with SBBC 's information technology systems.

IF A PARTY TO THIS AGREEMENT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO ITS DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THE AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 754-321-1900, REQUEL.BELL@BROWARDSCHOOLS.COM, RISK MANAGEMENT DEPARTMENT, PUBLIC RECORDS DIVISION, 600 SOUTHEAST THIRD AVENUE, FORT LAUDERDALE, FLORIDA 33301.

14.2   *Protection of Trade Secrets or Confidential Information*

If Virtustream considers any portion of materials made or received in the course of performing the Services ("contract-related materials") to be trade secret under section 812.081, F.S., or otherwise confidential under Florida or federal law, Virtustream must clearly designate that portion of the materials as "confidential" when submitted toSBBC. If SBBC receives a public records request for contract-related materials designated by Virtustream as "confidential," SBBC will provide only the portions of the contract-related materials not designated as "confidential." If the requester asserts a right to examine contract-related materials designated as "confidential," SBBC will notify Virtustream. Virtustream will be responsible for responding to and resolving all claims for access to contract-related materials it has designated "confidential."

If SBBC is served with a request for discovery of contract-related materials designated "confidential," SBBC will promptly notify Virtustream about the request. Virtustream will be responsible for filing the appropriate motion or objection in response to the request for discovery. SBBC will provide materials designated "confidential" only if Virtustream fails to take appropriate action, within timeframes established by statute and court rule, to protect the materials designated as "confidential" from disclosure.

Virtustream will protect, defend, and indemnify SBBC for claims, costs, fines, and attorney's fees arising from or relating to its designation of contract-related materials as "confidential."

14.3   *Document Management*

Virtustream must retain sufficient documentation to substantiate claims for payment under the Agreement and all other records, electronic files, papers and documents that were made in relation to this Agreement. Virtustream must retain all documents related to the Agreement for five years after expiration of the Agreement, or, if longer, the period required by the General Records Schedules maintained by the Florida Department of State available at: http://dos.myflorida.com/library-archives/records-management/general-records-schedules/.

15.   *Insurance Requirements*

Virtustream shall comply with the following insurance requirements throughout the term of this Agreement.

General Liability.   Limits not less than $1,000,000 per occurrence for Bodily Injury/ Property Damage; $1,000,000 General Aggregate. Limits not less than $1,000,000 for Products/Completed Operations Aggregate.

Professional Liability/Technical Errors & Omissions.   Limit not less than $1,000,000 per occurrence covering services provided under this Agreement.

Workers' Compensation.   Florida Statutory limits in accordance with Chapter 440; Employer's Liability limits not less than $100,000/$100,000/$500,000 (each accident/disease-each employee/disease-policy limit).

Auto Liability, Owned, Non-Owned and Hired Auto Liability with Bodily Injury and Property Damage limits of not less than $1,000,000 Combined Single Limit.

Acceptability of Insurance Carriers. The insurance policies shall be issued by companies qualified to do business in the State of Florida. The insurance companies must be rated at least A- VI by AM Best or Aa3 by Moody's Investor Service.

Verification of Coverage. Proof of Insurance must be furnished within 15 days of execution of this Agreement. To streamline this process, SBBC has partnered with EXIGIS Risk Works to collect and verify insurance documentation. All certificates (and any required documents) must be received and approved by SBBC before any work commences to permit Virtustream time to remedy any deficiencies. Please verify your account information and provide contact details for your company's Insurance Agent via the link provided in the email upon award.

Required Conditions. Liability policies must contain the following provisions. In addition, the following wording must be included on the Certificate of Insurance:

1. SBBC, its members, officers, employees and agents are added as additional insured.
2. All liability policies are primary of all other valid and collectable coverage maintained by SBBC.
3. Certificate Holder: The School Board of Broward County, Florida, c/o EXIGIS Risk Management Services, P. O. Box 4668-ECM, New York, New York 10163-4668
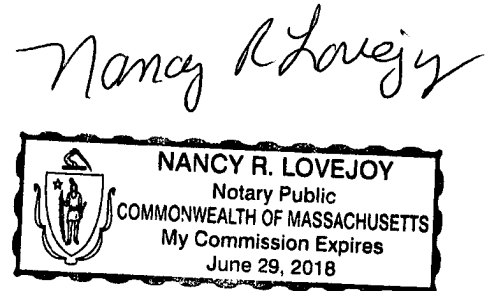
Cancellation of Insurance. Vendors are prohibited from providing services under this Agreement with SBBC without the minimum required insurance coverage and must notify SBBC within two business days if required insurance is cancelled.

SBBC reserves the right to review, reject or accept any required policies of insurance, including limits, coverage's or endorsements, herein throughout the term of this Agreement

Agreed to and Accepted:

VIRTUSTREAM, INC.

By: _Vann E Candela_

Name: _Vanessa E. Candela._
Title: _VP Legal Counsel_
Date: _9/1/2017_

NANCY R. LOVEJOY
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires
June 29, 2018

[THE REAMINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK; SIGNATURE PAGE TO FOLLOW]

(Corporate Seal)

THE SCHOOL BOARD OF BROWARD
COUNTY, FLORIDA

By _Abby M. Freedman_

Abby M. Freedman, Chair

September 2017

Date

ATTEST:

Robert W. Runcie, Superintendent of Schools

Approved as to Form and Legal Content:

Janette M. Smith Digitally signed by Janette M.
Smith
Date: 2017.09.05 13:21:40 -04'00'

Office of the General Counsel

Appendix A
DATA PROTECTION SCHEDULE

This DPS sets forth Virtustream's and SBBC's obligations regarding the security and confidentiality of SBBC Data. In the event of a conflict between this DPS and the Agreement with respect to SBBC Data, this DPS shall control.

1.   COMPLIANCE WITH LAW AND DPS

Each party shall comply with all applicable laws and regulations. Virtustream has implemented and maintains a written information security program, and the Cloud Services will comply with such program and with all applicable Data Privacy Laws, including the Massachusetts Standards for the Protection of Personal Information of Residents of the Commonwealth (201 CMR 17.00); provided that SBBC notifies Virtustream in writing of the type of data stored on the Cloud Platform and any necessary or required compliance controls (e.g. HIPAA, PCI, etc.). Except for compliance with applicable Data Privacy Laws, Virtustream shall not be responsible for providing any security or compliance controls unless agreed to in an SOW.

2.   DATA PROCESSING AND CONTROL

2.1   *SBBC Data; Virtustream Personnel*

Other than as expressly set forth in the Agreement or this DPS, SBBC shall retain all right, title and interest (including all intellectual property and proprietary rights in and to all SBBC Data. Virtustream shall: (A) take reasonable steps to keep SBBC Data confidential; (B) not access any SBBC Data for any purpose other than as reasonably necessary to provide the Services, to exercise any right granted to it under the Agreement or as agreed to in writing by SBBC and Virtustream; and (C) require all personnel to comply with obligations consistent with the terms of this DPS. Virtustream shall be responsible for any breach of this DPS by any of its personnel.

2.2   *Legal Proceeding*

If Virtustream receives a request from a third-party in connection with any government or court investigation or proceeding that Virtustream believes would require it to produce any SBBC Data, Virtustream shall, prior to producing or disclosing any such SBBC Data (if such notice is permissible according to applicable law), notify SBBC of such request, and reasonably cooperate with SBBC if SBBC wishes to limit, challenge, or protect against such disclosure, to the extent permitted by applicable law or regulation.

2.3   *Notice*

If Virtustream receives a request from an individual for access to that person's, or any other individual's, SBBC Data, Virtustream shall promptly notify SBBC, to the extent permitted by applicable law or regulation. SBBC shall be solely responsible for responding to any such request, provided that Virtustream shall provide SBBC with reasonable cooperation and assistance in relation to any such request. Virtustream shall not provide or disclose SBBC Data to the requesting individual, unless otherwise required by applicable law or regulation.

3.   DATA SECURITY / SECURITY INCIDENTS

3.1   *Cloud Platform*

Virtustream shall implement and maintain in the Cloud Platform, commercially reasonable and appropriate administrative, organizational, technical and physical measures to protect the security, integrity, confidentiality and availability of SBBC Data against unauthorized or unlawful access, use or disclosure. Notwithstanding anything to the contrary herein, in no event, shall Virtustream be held liable or responsible for any inaccuracies or omissions contained in, or the corruption of, any SBBC Data. SBBC shall be responsible for implementing and maintaining such safeguards in the SBBC Zone, including but not limited to encryption of data in motion and at rest.

3.2   *Security Incident*

If Virtustream becomes aware of a Security Incident, Virtustream shall promptly notify SBBC of the Security Incident and shall, subject to applicable laws, regulations, or a governmental request, provide SBBC with details to the extent available about the Security Incident, including, how it occurred and to the extent caused by a breach of Virtustream of its obligations under this DPS,

how Virtustream will address the Security Incident. In the event of a Security Incident, Virtustream and SBBC shall cooperate in good faith to resolve any privacy or data security issues involving SBBC Data, and to make any legally required notifications to individuals affected by the Security Incident. Notwithstanding anything to the contrary, Virtustream shall have no liability for any Security Incident to the extent the applicable SBBC Data was not encrypted and such Security Incident did not solely result from a breach by Virtustream of its obligations under this DPS.

3.3   *Third Party Notice*

Except as otherwise required by applicable law or regulation, Virtustream shall not inform any third party of any Security Incident without first obtaining SBBC's prior written consent, other than to inform a complainant that the matter has been forwarded to SBBC. Both parties shall work together in good faith on the content of any notification of a Security Incident.

4.   DATA PROTECTION TRAINING.

Virtustream shall require personnel who have access to SBBC Data to complete privacy and data security training on a periodic basis in accordance with its standard employment policies.

5.   DATA SECURITY INSPECTIONS AND AUDITS.

Virtustream shall provide SBBC with information as may be reasonably requested by SBBC from time to time regarding Virtustream's compliance with its data security obligations under this DPS, including Virtustream's then current SSAE16 attestation, provided that disclosure of any such information would not violate Virtustream's reasonable privacy or data security policies, or confidentiality obligations with any third party. Virtustream will maintain support of the applicable certifications and standards listed at http://www.virtustream.com/cloud/virtustream-enterprise-cloud/security-compliance as updated by Virtustream from time to time. As of the Effective Date, Virtustream currently maintains the following certifications for the specified data centers:

DATA CENTER	SSAE16/SOC2/ ISAE 3402 [Note 1]	PCI-DSS 3.0	ISO 27001-2013	ISO 9001-2015	ISO 22301	HIPAA	CSA-STAR
USDC1 Vienna, VA	yes	yes [Note 2]	yes	In progress	In progress	yes	yes
USDC 3 Las Vegas, NV	yes	In progress	yes	In progress	In progress	2017	yes

> **Note 1:** Virtustream maintains a SSAE 16. Commencing with reports issued after May 1, 2017, Virtustream will maintain a SSAE 18.
> **Note 2:** PCI certification is currently for a specific node with the data center and not for the data center generally.
>
> The public sector or federal government data centers and specific certifications, such as Fed Ramp and ITAR, are not included above but may be provided to Client upon request.

As of the Effective Date, the certifications are assessed on the following schedule:

- SSAE16 (or SSAE 18, as applicable)/SOC2/HIPAA/CSA-State is assessed semi-annually: April to June and November to January
- PCI is assessed annually
- ISO 27001 is assessed annually in January
- ISO 9001/22301 is currently being finalized

6.   TERMINATION / RETURN OR DESTRUCTION OF SBBC DATA.

This DPS shall terminate when the Agreement terminates or expires. Upon such termination, SBBC shall be responsible for removing or deleting SBBC Data from the Cloud Platform; provided, however, at SBBC's sole cost and expense and subject to a Disengagement SOW, Virtustream may assist SBBC with the removal of the SBBC Data and provide certification or proof of removal. Following termination and full removal of SBBC Data, Virtustream shall have no liability for the SBBC Data.