CINCINNATI BELL TECHNOLOGY SOLUTIONS INC.

for the

STATE OF OHIO

Service Attachment #1

Managed Voice over IP (VoIP) Service

Amendment #3

This Amendment to Service Attachment 1, is between Cincinnati Bell Technology Solutions, Inc ("CBTS" or "Service Provider") having an office at 4600 Montgomery Rd – Suite 400, Cincinnati, Ohio 45212-2600, and the State of Ohio, Department of Administrative Services ("the State"), having its principal place of business at 30 East Broad Street, 40th Floor, Columbus, Ohio 43215 (jointly referred hereto as the "Parties"), and it is effective as of the date signed by the State. It amends that certain Master Services Agreement between the Parties dated January 18, 2012.

Purpose: The purpose of this Amendment is to make revisions to services covered in Service Attachment 1, Amendment 2 dated May 3, 2013.

Replace the following portions of Section 5 of Service Attachment 1 titled 'Pricing Tables' with updated language below. Also, replace any language amended in Amendment 1 to Service Attachment 1 that is regarding language modification for Section 5 with updated language below.

5.1.2 Enhanced Features Plan

The Enhanced Features Plan consists of the seven standard features included in the Basic Features Plan and also includes Unified Communications, Multi-Point Video Conferencing and Informacast. These features are defined below.

Key Term	Description
Unified Communications (UC)	Cisco® Unified Communications Solutions unify voice, video, data, and mobile applications on multiple fixed and mobile devices, enabling easy collaboration from any workspace. This includes the ability to have two devices on a single number, i.e. physical phone and soft phone, or two physical phones that ring using the same number.
Multi-PointVideo Conferencing	The Enhanced Profile includes a video multi-point bridge that accommodates up to 6 audio and 6 video endpoints. It provides the host with secure passcode access to invite other video and/or audio participants. The feature includes custom screen layouts and the ability to share content for Ad Hoc and scheduled conferences. Also, a call can be attended via audio by any endpoint whether on-net or off-net. The conference can be attended via video by: • Any NGTS video capable endpoints • SIP Trunk based video endpoints *Note: Each Enhanced Profile has one (1) multi-point bridge included in the cost of the profile.*
InformaCast	InformaCast is the singlewire service that sends alerts to a pre-defined group of recipients of a non-audio (visual message) and an audio message broadcast. Supported InformaCast devices include IP phones, speakers (both analog and IP), desktops, etc. that have the ability to receive a text and/or audio message whenever a monitored call is dialed.

5.1.7 Room Based Profile (to Amendment 2)

Customers with the need to accommodate larger numbers of participants would have a need for larger video endpoints. For this reason, Service Provider offers a Room Based Profile that is designed to support use of room based video endpoints such the Cisco SX20 and the Polycom Group 500 that are not used as desktop or personal devices.

Key Term	Description
Room Based Profile	The Room-Based Profile requires additional licensing for audio plus video, and is classified as a separate profile. The profile supports by SIP and H.323 based endpoints, and enables the users to share content. As an example, this includes video endpoints such as the Cisco SX20 and the Polycom Group 500 that are not desktop/personal endpoints. The Room Based Video Profile supports endpoints that may be used for larger conferencing environments, conference rooms, or specialized video sessions. Quite often, it is used for: • Medium to Large Group (up to 25 participants total per session) • Operational meetings at multiple locations • Web Training conducted for larger groups • Specialized video sessions, such as health examinations, that require High Definition video. • *Note: Each Room Based Profile has one (1) Multi-Point Bridge included in the cost of the profile.*
Room Based Multi-Point Conferencing Bridge	The Room Based Multi-Point Conferencing Bridge accommodates up to 25 audio and video endpoints. This provides the host with an access code that they can include on meeting invitations to invite other video and/or audio endpoints. The meeting has a passcode to secure and also provides for custom screen layouts and the ability to share content. It also provides for Ad Hoc and scheduled conferences. The conference can be attended via audio by any endpoint whether on-net or off-net. The conference can be attended via video by: • Any NGTS video capable endpoints • SIP Trunk based video endpoints *Note: Each Room Based Profile has one (1) Room-Based Multi-Point Conferencing Bridge included in the cost of the profile.*
Room Based Endpoint Installation Fee (optional)	This refers to the optional service of setup and initial configuration of a room based unit (s). This includes un-boxing, assembly and cabling as well as call manager configuration and registration. *Note: This does NOT include any wall mounting, in-wall or above-ceiling cabling, nor installation of accessories such as ceiling mounted microphone and speaker kits, or wall mounted shelving.*

5.1.7.1 Video Conferencing Costs

Item	Monthly Recurring Charge (MRC)	Non-Recurring Charge (NRC)
Room Based Profile 1-100 Profiles	$29.00	-0-
Room Based Profile 101-500 Profiles	$27.00	-0-
Room Based Profile 501+ Profiles	$25.00	-0-
Room Based Endpoint Installation Fee (optional)	-0-	$399.00 per Room

Note: The Enhanced Profile MRC is based on the 5.1.3.1 Volume Discount Costs for Basic and Enhanced Profiles.

5.5. SIP Service and Setup

Session Initiation Protocol (SIP) is an application-layer control protocol; a signaling protocol for Internet Telephony. SIP can establish sessions for features such as audio/video conferencing and call forwarding to be deployed over IP networks, that enables Service Provider to integrate basic IP telephony services with Web, e-mail, and instant message services.

Also, Video SIP Trunk service is available to organizations that already have significant investment in video endpoints and infrastructure. A trunk can be built from the NGTS platform to the customer's platform.

Key Term	Description
Call Path	A call path is a concurrent call, or the number of users on an off-net call and at any one time. This mechanism serves as the unit/service that SIP Trunk customers purchase for monthly service. A SIP Call Path equals one Subscriber Profile.
SIP Trunk Service Fee	This is a charge call path use based on frequency and number of users (concurrent call paths). Service includes investigating alarms, applying patches or break-fix and incident repair, in the event of service disruption.
SIP Trunk Setup Fee	Refers to an initial one-time installation and configuration charge.
SIP Trunk DID Fee	Refers to the per DID (direct-inward-dial) charges on SIP Trunks services
Video SIP Trunk Service	This service allows for transmission of video, voice and data simultaneously though SIP. The Video SIP Trunk service is available to organizations that already have significant investment in video endpoints, infrastructure, and support. A trunk can be built from the NGTS platform to the customer's video platform. This enables calls to and from the customer platform to and from NGTS phones and resources to allow for point-to-point as well as point-to-multipoint video calls.
Video SIP Trunk Service Fee	This is a charge call path use based on frequency and number of users (concurrent call paths). Service includes investigating alarms, applying patches or break-fix and incident repair, in the event of service disruption.
Video SIP Trunk Set-Up	This refers to an initial one-time installation and configuration non-recurring charge (NRC). This is a one-time charge for new equipment and/or installation setup fee per Subscribing Entity.
Video SIP Trunk DID Fee	*There is NO DID fee in the Video SIP Trunk Service.*

The Service Provider Equipment and the SIP Service Fee is based on a 60-month commitment.

NGTS recommendations for IP Phone Hardware Catalog for options that are available for purchase or lease. The State may purchase hardware from another vendor and supported equipment requirements are detailed in the Hardware Catalog.

5.5.1 SIP Service Fee and Equipment Setup Cost

1 SIP Call Path = 1 Subscriber Profile

SIP Trunk Service for Total Number of Users	SIP Service Fee Rate Per Month	One Time SIP Equipment Setup Fee
SIP Port and Access	N/A	N/A
SIP Call Path for 0-500 Users	$23	$600.00
SIP Call Path for 501-1000 Users	$21	$600.00
SIP Call Path for 1001-2000 Users	$19	$600.00
SIP Call Path for 2001-3000 Users	$17	$600.00

1. Price is based on one (1) Concurrent Call Path for 6000 MOU maximum per month.
2. There is a one-time charge for equipment and Setup Fee per Subscribing Entity.
3. There is a Call Path monthly charge of $.008 per minute for each minute over the 6000 total maximum.
4. There is a monthly ported DIDs charge of $.50 per DID.

5.5.2 Video SIP Trunk Service Costs

VC SIP Trunk Service by User Group Number of Users	VC SIP Service Fee Monthly Recurring Charge (MRC)	VC SIP Setup One-Time Setup Fee*
Video SIP Trunk Users 1-100	$46	$600.00
Video SIP Trunk Users 101-500	$44	$600.00
Video SIP Trunk Users 501+	$42	$600.00

*There is a one-time charge for equipment and Setup Fee per Subscribing Entity.

5.5.2.1 Video Technical Prerequisites

There are video technical prerequisites that require the Subscriber to:

1. Maintain video grade bandwidth to OARnet or Ohio.Gov.

2. Own a SIP compatible backend infrastructure of either Polycom or Cisco

3. Migrate endpoints to NGTS e.164 Dial Plan (An 11-digit number is assigned to each endpoint)

4. Support direct inward dialing (DID).

5. Support Network Optimization for IP addressing.

5.5.3. Reporting

VeraSmart provides online access and global reporting for all services including; invoice data, detailed usage, inventory, bill analysis, and cost detail, as well as SIP and video trunk analysis, etc.

Call detail information is available through the Service Provider VeraSmart website at:
http://172.22.128.19/VeraSMART/enu/Login.aspx?autoLogin=false.

5.10 Contact Call Centers

In addition to the Basic Quality Monitoring Feature Group, Service Provider (SP) is now offering supplemental *Quality Monitoring Add-Ons,* a way to monitor calls on the NGTS platform and then listen and review them. There is also the possibility of downloading or emailing the file if approved to do so by the Agencies Legal Department. *Basic Quality Monitoring* service is a recording application to handle both inbound and outbound recording for both voice and non-voice interactions. It includes many feature components. Refer to Figure 5.10.1.

Supervisors that monitor calls but do not record them are available at no cost.

Quality Monitoring is also available with a Basic or Enhanced Profile. This is particular to supervisors that request Quality Monitoring, Call Recording and Evaluation and Analysis for the purpose of assessing standards for training, coaching or audit when it is attached to a Basic or Enhanced Profile.

5.10.1 Basic Feature Group Quality Monitoring

Key Term	Description
Automatic Call Distribution (ACD)	Refers to a feature that routes calls based upon caller identification, dialed number, time of day, and custom defined parameters established in an IVR (Interactive Voice Response) program script. As stated elsewhere in this Amendment, this requires a basic or enhanced profile and is available after a minimum of 200 profiles are established.
ACD Agent	Refers to an employee of a Contact Call Center. Due to the unique features associated with this function, this is also referred to as an *agent profile*.
Contact Call Center (CCC)	Refers to a telecommunications workgroup or organization that provides customer service over the telephone. A contact center (also referred to as a *customer interaction center* or *e-contact center*) is a central point in an enterprise from which all customer contacts are managed. The contact center typically includes one or more online call centers but may include other types of customer contact as well, including e-mail newsletters, etc. Example: A helpdesk. *Note: These are treated as professional service engagements and/or projects that include a separate TSR and Statement of Work (SOW) and quoted as an Individual Case Basis (ICB).*
Interactive Voice Response (IVR)	IVR is a telephony technology in which someone uses a touch-tone telephone to interact with a database to acquire information from or enter data into the database. (As defined in Webopedia.com)
Base Outbound Dialer per Port (ODP)	Also known as *Predictive Dialer* that refers to an automatic dialing service to establish a connection. It automatically calls a list of telephone numbers in sequence, screening out no-answers, busy signals, answering machines and disconnected numbers while predicting the point at which a human caller will be able to handle the next call.
Quality Monitoring	Refers to a service to enable the evaluation of all business conversations regarding criteria of quality determined by the company in a standardized and comparable way. This may include selective recording of calls (voice and screen) according to a variety of user-defined or project-specific parameters and is also known as *Call Recording*.
Dashboard and Messaging	The *Dashboard* function is an application user web interface (graphic) user interface that organizes and presents information in a way that is easy to read. This service provides: • Immediate access to a 100% web-based application, no client install • A real-time view of all current conditions • Tabular access to application modules • A bookmark feature that selects most frequently used (Favorites). • A Dashboard view based on user role based permissions. • Portlets configured with external web links. *Portlets* are pluggable

	displayed in a web portal. *Messaging* is a process of transmitting information electronically from one location to another by computer or phone. This service includes: • A real-time, rule-based messaging framework • An Inbox (queue) with workflow actions • Alerts and notifications (Subscriber list to accommodate up to 40 contacts) • Broadcast messages to email, Inbox, or VoIP phone
Reports	The *Reports* function that provides an account or statement describing in detail an event, situation, or the like, usually as the result of observation, inquiry or communication event. The feature includes: Ad hoc reports, built-in report templates that include Call Recordings, Quality Reviews, Agent Performance Trends, etc. Vendor support for request and purchase of customized reports. Use Report Scheduler-The ability to schedule delivery of reports via email or export to multiple formats (XLS, PDF, HTML, XML, CSV, RTF) Ability to upload customer built reports including drill down for root-case analysis
Call Recording	Recording refers to the function to capture and register an audio event (or sound from an audio-visual event) in a permanent form by mechanical or electrical means for preserving the original event for reproduction. The service is a recording application to handle both inbound and outbound recording for both voice and non-voice interactions. This service is also referred to as *Quality Monitoring.*
Silent and Live Monitor	Monitor refers to the user participation of actively listening and reviewing either a previously recorded or real-time communication event. The web-based feature also includes the ability to email agents or insert comments to tag a specific call. This facilitates: • supervisor quality performance monitoring • communication and instruction among supervisor, agents and trainees
Evaluation and Analysis	The Evaluation and Analysis component is an assessment or structured interpretation and giving of meaning to predicted information or actual impacts of outcomes. This includes the careful study of information by separating a whole into its component and examining the relationship of the parts. Capabilities also include: • **Customer Use Options**—Recording may initiate any of the following activation states, 1) always –on, 2) random selection based on a pre-set criteria, or 3) on-demand start. All features are determined by the Customer. • **Conversation Graph**—A feature visually depicts conversations to identify quick identification of problem areas (cross-talk, elevated voices, speech spectrum patterns, etc.) • **Caller Experience Detail**—This feature makes available all segments of a user call for study. • **Bulk Download**—The feature refers to the ability to store data in a format that includes a WAV, MP3 file. (Note: This is a

	permission role-based feature and not all users are able to download calls from the system.)
	Performance metrics are based on internal and external objective, measureable criteria that is determined by the Customer.

5.10.2 Basic Feature Group QM Costs

Features	Monthly Recurring Charge (MRC) Per User
ACD – Agent Profile	$31.20
IVR per Port	Included**
Outbound Dialer per Port	Included**
Basic Profile	$ 13.00*
Enhanced Profile	$ 19.40*
Basic Quality Monitoring (QM)	$9.41

* This is in additional fee to the Basic, Enhanced, or Agent Profile of an individual user.
** The features below are based on a minimum of 200 Profiles located in a contact call center. The *IVR per Port* and *Outbound Dialer per Port* rate is based on a minimum of 200 Agent Profiles.

5.10.3 Optional Service Features
Below is a descriptive list of Add-On Features that are also available. An eligible Subscriber is one who is already enrolled for Basic Quality Monitoring as described above in Section 3 of this document. These features are priced separately as a monthly recurring cost (MRC) per Add-On Feature per User. Refer to Figure 4 QM Add-Ons.

5.10.4 Optional Quality Monitoring Add-Ons

Key Term	Description
Screen Monitor	This is a feature that enhances a real-time performance assessment by showing what the agent sees and what support tools (applications) they use. This allows a supervisor/trainer to evaluate a user during a training or live production call event.
Speech Analyzer	The Speech Analyzer is the feature of analyzing recorded calls and to gather information within agent/customer interactions. Enterprise criteria includes elements of automatic speech recognition, where the identities of spoken words or phrases are determined, and it may also include analysis of one or more of the following: • the topic(s) being discussed • the emotional character of the speech • the amount and locations of speech versus non-speech (e.g. call hold time or periods of silence) Service components include: • A phonetic based engine • Capacity for 100% of the calls can be analyzed • Ad-hoc search capabilities of any key word(s) or phrase(s) • Multi-search capabilities using Boolean operators (AND/OR) • Call classification/categorization based on pre-defined business rules • Agent and customer speech responses that can be searched separately • Language packs that can be applied during runtime → Agent voice can have a different language pack than the customer
Survey	The Survey feature integrates a customer satisfaction survey add-on that integrates the assessment with customer call service

	Create IVR based Surveys • Supports any VXML compliant IVR (IPIVR & CVP) • Premise based solution • Web-based form builder • Survey definition in database translated on the fly to VXML for IVR distribution • Web-based Reporting & Dashboard with real-time Survey results **Rule driven interface dynamically targets right survey to the right customer based on:** • Skill Group/Queue, Client (in Multi-tenant) etc. **Integrate survey data with other data to create holistic view of agent performance** • Tie together with recordings and integrate with KPI, analytics and other CRM/CTI data
Workforce Management (WFM)	*Workforce Management* is a feature that combines real-time supervisor monitoring of agent performance that offers the following benefits since it: • Optimizes your workforce using forecasting. • Automates the scheduling. • Communicates with agents. • Enhances Contact Call Center performance by integrating key performance indicator (KPI) information.

5.10.5. Optional Quality Monitoring Add-Ons

The features below require a Basic or Enhanced Profile plus Quality Monitoring.

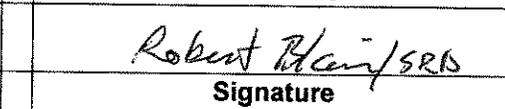| Add-On (QM) Features	Monthly Recurring Cost (MRC) per User
Screen Monitor	4.16
Speech Analyzer	13.49
Survey	9.00
Workforce Management Basic	27.00
Workforce Management Advanced	39.00

5.16 E-Rate Eligibility

E-Rate is the commonly used name for the Schools and Libraries Program of the Universal Service Fund, which is administered by the Universal Service Administrative Company (USAC) under the direction of the Federal Communications Commission (FCC).

Cincinnati Bell agrees to forward reporting items and contributions to State of Ohio eligible entities that use USAC as referenced in the Master Service Agreement. Cincinnati Bell Any Distance, Inc (CBAD)., Cincinnati Bell Technology Solutions, Inc., and its affiliates provide E-rate eligible services referenced in the Master Service Agreement under SPIN numbers registered for eligible categories based on USAC Criteria.

Contact CBTS at AskNGTS@CBTS.Net to request assistance for information regarding specific SPIN numbers for the USAC E-Rate process and Customer responsibilities.

SIGNATURE PAGE TO FOLLOW

In Witness Whereof, the Parties have executed this Amendment, which is effective on the date the State's duly authorized representative signs it on behalf of the State, ("Effective Date").

CBTS	STATE OF OHIO, DEPARTMENT OF ADMINISTRATIVE SERVICES
[signature]	*Robert Blair/SRB*
Signature	**Signature**
Robert Messner	Robert Blair
Printed Name	**Printed Name**
Regional Director	DAS Director /Asst. Dir
Title	**Title**
07/17/14	7/30/14
Date	**Effective Date**
Federal Tax ID	