OPERATIONS MANUAL
Voice Over IP

Section I: Introduction and Service Description.

1. **Voice over IP.** Voice over IP services (collectively "VoIP") IP Integrated Access works with existing key systems or PBX systems and is designed for small to medium sized locations requiring converged voice and data access. IP Integrated Access is available via the A LA CARTE pricing model with Tiered and metered pricing options.

2. **IP Trunking** is designed for enterprise locations with deployed IP PBX and IP phones which require IP access to the Company network. IP Trunking is available via the A LA CARTE pricing model with Tiered and metered pricing options.

3. **Hosted IP Centrex (HIPC)** is designed for enterprise locations requiring all the features of a PBX or key system, except that the features and intelligence reside on the Company network. Hosted IP Centrex is available via the A LA CARTE pricing model with Unlimited, Tiered or metered pricing options via the BUNDLED pricing model with Unlimited options. If one Customer site uses A LA CARTE metered pricing, all Customer sites must use metered pricing. In all cases, HIPC includes access via Company’s Integrated Communications Package (ICP) to either Intermediate or Advanced levels of feature package content. Under the BUNDLED pricing model, for each Customer location, up to two T-1 lines may be utilized (each of which must be purchased as part of a separate bundle

4. **Customer Premises Equipment.**
   a. The capacity of the Ethernet switch or analog gateway provided as a part of BUNDLED Pricing (whether standard or upgraded) is based on the simultaneous calling capacity selected. Under the BUNDLED Pricing Plan, Customer may obtain optional Customer Premises Equipment (CPE) pursuant to a separate CPE Service Attachment.

   b. **Internet Dedicated Shadow T1 Service.** Internet Dedicated Shadow T1 Service is by definition a back-up service, available for use only with HIPC when Customer’s primary transport service is not available, and so is designed to maintain rather than increase Customer’s calling capacity. Bundled Internet Dedicated Shadow T1 Service uses the VoIP Service Equipment included with Customer’s primary Bundled Internet Dedicated Service.

   c. **IP Addresses.** The BUNDLED Pricing Plan includes assignment of a suitable number of IP addresses to be used in conjunction with VoIP at Customer’s request and in accordance with the Company’s then-current assignment guidelines.

   d. **Billing Initiation.** Customer can arrange to port its numbers using LNP (Local Number Portability) at the same time VoIP service with BUNDLED pricing is made available for use, or delay LNP for up to 10 days afterwards. Billing for VoIP service with BUNDLED pricing will begin no later than the tenth day after the VoIP service is available for use.

5. **VoIP Feature Management.** VoIP Feature Management is available to Customers of VoIP IP Integrated Access, IP Trunking, and Hosted IP Centrex. Customer must call in to the Customer Service Center to request that Company perform Feature Management. VoIP Feature Management consists of those feature configuration and profile changes that could be performed by Customer either via the Company VoIP web interface or desktop application or the Company VoIP Administrator interface if Customer chose to do so.

6. **Customer Authorization of Charges.** Prior to Company’s performance of the requested VoIP Feature Management activity, Customer will be informed of the type of support activity, and the applicable charge for such activity. Customer will be invoiced the applicable charge upon successful completion of the support activity.

7. **Premium CPE and LAN Support.** Premium CPE and LAN support services will consist of activities that enable or improve the capabilities provided by Customer’s CPE. Examples of CPE and LAN support activities include IOS upgrades for phones or IP phone configuration.
8. **Verizon’s Alternate Route Recovery Service** ("VARRS"). If Customer purchases VARRS, the standard VoIP Network Availability Service Level Agreement ("SLA") threshold is enhanced to 100%. In the event Customer desires to make a VARRS SLA claim for credit, Customer must request such credit within 30 business days after the month in which the VARRS Network Availability SLA was not met in accordance with the standard VoIP SLA process guidelines set forth at [http://www.verizonbusiness.com/terms](http://www.verizonbusiness.com/terms). For VARRS-related SLA claims, Customer should note in the Comments section of the on-line credit request form that this is a VARRS SLA Network Availability credit request.

9. **On-Net Calls.** VoIP allows Customers to complete IP-to-IP calls that both originate and terminate on Customer’s MCI Legacy Company data network (On-Net Calls).

10. **Outbound Off-Net U.S. Long Distance Calls.** VoIP offers network gateways to the Company long distance telephone network, allowing Customer to complete long distance calls that terminate at locations other than Customer’s MCI Legacy Company data network (Off-Net Calls). U.S. domestic calls (calls that are not International) are any that originate in the U.S. Mainland or Hawaii and terminate to the U.S. Mainland, Alaska, Hawaii, Puerto Rico, the U.S. Virgin Islands, American Samoa, Guam, and CNMI.

11. **Outbound Off-Net Local Calls.** At Customer locations that are served by a MCI Legacy Company local switch, VoIP offers network gateways to the MCI Legacy Company’s local switching network, allowing Customers who select VoIP local service to complete Off-Net local calls, as determined by the Company. Local calls from Customer locations served by a MCI Legacy Company local switch will support the “Local Service Features” set forth in Section III.3. Customers with locations not served by a Company local switch or Customers who do not select VoIP local service may deploy a Company-certified local gateway on their premises and purchase local service from a LEC, in which case local service, including local service features, will be provided via Customer’s LEC and associated local service charges will apply. Customers may obtain CPE, including Company-certified CPE, under the terms of a separate service attachment.

12. **Inbound PSTN Calls.** VoIP allows end-users to have a North American Numbering Plan (NANP) number assigned to their phone and VoIP will allow inbound PSTN calls to be received. Local number portability is supported. Customers with locations not served by a MCI Legacy Company local switch or Customers who do not select VoIP’s local service must deploy a company-certified local gateway on their premises to receive inbound PSTN calls. Customers may obtain CPE, including Company-certified CPE, under the terms of a separate service attachment.

13. **VIPER** allows calls between Company VoIP Customer locations to be terminated without incurring per-minute U.S.-domestic or international usage charges provided both the originating and terminating locations have the VIPER feature enabled. There is no additional fee for VIPER, but Customer must order this feature to obtain its benefits.

14. **International Calls.** VoIP allows Customers to complete International calls to the locations set forth in Section IV. 3 “Outbound International Calling.”

15. **Fax.** VoIP supports fax pass-through, though fax transmission is highly dependent on Customer’s facsimile device, its ability to disable error correction, and other factors.

16. **Enhanced Voice-mail** can be retrieved via phone, web site or e-mail.
   
   a. This feature enables end-users to access and use VoIP from any phone that can be dialed directly (e.g., no extensions),

   b. The Attendant Console enables an end-user such as an office receptionist (an “Attendant”) to monitor any or all of the end-users who are provisioned at the same location as the Attendant. The Attendant Console screen graphically displays the monitored end-users’ status (i.e., busy, idle, do not disturb), as well as certain call information (e.g., name, number, session duration).

   c. The Auto Attendant serves as an automated receptionist that answers the phone and provides a personalized message to callers with options for connecting to the operator, dialing by name or extension, or connecting to up to six extensions (e.g., 1 = Marketing, 2 = Sales, etc.).
d. Accounting/authorization codes enable the tracking of calls made to a location outside of the caller’s location by prompting end-users for a code at the time a call is made. Accounting codes are used for reporting purposes but are not validated by the network before connecting a call. Authorization codes are validated by the network before the call is connected. Accounting/authorization codes will be provided at no charge to VoIP Customers on the Company’s ICP platform.

e. A “feature profile” is established for every unique DID number. All VoIP Service types on the IASA platform provide one feature profile per simultaneous call at no charge. For Hosted IP Centrex, additional feature profiles on the IASA platform are available for an additional charge. IP Integrated Access and IP Trunking provide additional feature profiles at no charge.

f. For Hosted IP Centrex, a feature profile includes a user name and password to enable access to the Verizon Enterprise Center (VEC) so an authorized end-user can personalize features.

17. **Optional Network Features** available with A LA CARTE or BUNDLED pricing on the IASA platform are listed below.

   a. Auto Attendant
   b. Accounting and Authorization codes (available for Hosted IP Centrex; not available for IP Trunking)
   c. Attendant Console
   d. Remote Office
   e. Additional feature profiles
   f. Voice-mail

18. **Feature Packages and Optional Network Features** available with A LA CARTE or BUNDLED pricing on the ICP platform are listed below.

   a. **Intermediate.** Provides Hosted IP Centrex end-users basic telephony features such as call forwarding, 3-way calling, caller ID, etc., plus access to a web-based interface for additional enhanced features, e.g., scheduled call forwarding and Call Blast (an incoming call rings a number of devices simultaneously; also known as “simultaneous ring”). Also provides plug-ins (available via download from the ICP website) that provide real-time call management and a soft-phone.

   b. **Advanced.** Provides Hosted IP Centrex end-users all the capabilities of Intermediate plus a desktop client (available via download from the ICP website) that includes instant messaging capabilities.

   c. **Optional Network Features – ICP Platform.** Optional Network Features available with A LA CARTE or BUNDLED pricing on the ICP platform are listed below.

      1. Auto Attendant
      2. Attendant Console
      3. Voice-mail

   d. This feature allows Customer to send an “unscreened” ANI to the Company’s network which is then displayed to the called party as Caller ID. An “unscreened” ANI can be any telephone number that Customer passes through the Company’s network for Caller ID display purposes only. There is no charge for this feature. If Customer selects this feature, the Company will designate one of Customer’s assigned telephone numbers as a “Screened Telephone Number” for each Customer unique location. The Company will use the Screened Telephone Number to determine call origination for billing, call routing and E911 support. Customer is responsible for configuring its IP-PBX, PBX or other devices to accommodate and properly process the Screened Telephone Number.

   e. **CNAM** is the display of the calling party name (CNAM) following the calling party number (CPN) on a called party’s Caller ID display box. CNAM is only available if CPN Delivery is enabled. This feature allows a calling name to be defined that will be associated with the CPN.

19. **Operator Services.** Customer may obtain the assistance of a local operator to complete local exchange telephone calls in the following manner. In addition to the monthly recurring charge for VoIP, the surcharges...
identified in the Section IV.6, “Local Operator Assistance Rates and Charges” apply to the following operator services:

a. **Busy Line Verification and Busy Line Interrupt.** Busy Line Verification and Busy Line Interrupt services, which are furnished where and to the extent that facilities permit, provide Customer with the following options:

1. **Busy Line Verification.** Upon request of the calling party, the operator will verify that a line is busy. A per-call charge applies.

2. **Busy Line Interrupt.** The operator will interrupt the call on the called line to ascertain willingness to establish a conversation with an alternate party only if the calling party indicates an emergency and requests interruption. A per-call charge applies.

20. **Burstable Enterprise Shared Trunks.** Customer’s VoIP Integrated Access and IP Trunking hub and remote sites and HIPC sites that are provisioned with metered simultaneous calling capacity will be able to share across Customer’s enterprise the simultaneous calling capacity purchased by Customer. Any charges for Burstable Enterprise Shared Trunks are set forth in Customer’s Service Attachment.

21. **Compression.** VoIP supports the following compression algorithms:

a. **G.711 Codec Support:** Uncompressed voice; and,

b. **G.729a Codec Support:** Compressed voice using the G.729a codec is available with IP Integrated Access, Hosted IP Centrex, and IP Trunking only, and only if Customer's CPE also supports that algorithm.

22. **Call Management.** VoIP provides the following call management features for Customers that choose the network-based features:

a. **Call Reporting Details via the VEC.**

b. **Administrative Site Management via the VEC:** VoIP provides administrator accounts on a central web site.

c. **End-user Self Provisioning & Management via the VEC:** VoIP Hosted IP Centrex service provides web access for end-users to set up their accounts and administer features and calling treatments.

**Section II: Definitions.**

1. **Options/Types.** The Company provides for a single directory listing (Primary Listing) in the telephone directory published by the dominant exchange service provider in Customer’s exchange area of the station number, which is designated as Customer’s main billing number. Directory listings of additional Customer station numbers, other than Customer’s main billing number, associated with Customer’s service will be provided for a monthly recurring charge per listing. The following Directory Listing options/types are available:

a. **Primary Listing.** A Primary listing contains the name of Customer, or the name under which a business is regularly conducted, as well as the address and telephone number of Customer. The listing is provided at no additional charge.

b. **Additional Listings.** In connection with business service, additional listings are available only in the names of authorized end-users of Customer’s service.

c. **Non-published Listings.** A non-published listing is a listing that is not printed in directories and is not available from directory assistance. Non-published listings will be furnished, at Customer’s request providing for the omission or deletion of the Customer’s telephone listing from the telephone directory and, in addition, Customer's telephone listing will be omitted or deleted from the directory assistance records.
d. **Non-listed Numbers.** A non-listed number will be furnished at Customer’s request, providing for the omission or deletion of Customer’s listing from the telephone directory. Such listings will be carried in directory assistance and other records and will be given to any calling party.

e. **Foreign Listings.** Where available, a listing in the phone directory which is not in Customer’s immediate calling area.

f. **Alternate Call Listings.** Where available, a listing that references a telephone number which is not the primary listing for Customer. Customer must provide written verification that the alternate telephone number is authorized to accept calls.

2. **Person-to-Person Call.** A service where the person originating the call specifies to the operator a particular person to be reached. Person-to-person can be billed to a calling card, billed to a third number or billed collect.

3. **Third Number Billing Call.** A service that provides Customer with the capability to charge a call to a third party number which is different from the called or calling party number. The party answering at the third party number has the option to refuse acceptance of the charges in advance or when queried by the operator. A per-call charge applies.

4. **Collect.** A service that provides Customer with the capability to charge a call to the called party. Upon the operator’s announcement of a collect call, the called party has the option to refuse acceptance of charges in advance or when queried by the operator. A per-call charge applies.

5. **Station-to-Station.** A service that allows calls to be completed with the assistance of an operator to a particular station. The call may be billed to the called party. A per-call charge applies.

Customer may obtain Directory Assistance in determining telephone numbers by calling the Directory Assistance operator. Customer may request a maximum of two listings per call.

6. **LNP** gives Customer the ability to switch local service providers (LSPs) while keeping the same phone number.

7. **SACs** are non-geographic numbering plan areas (NPAs) such as 500 and 700. SACs are supported with VoIP local service.

### Section III: Features and Options

1. **Maintenance of VoIP Service Equipment.** With respect to the VoIP Service Equipment only, the Company will provide the following maintenance services (Maintenance Services):

   a. use commercially reasonable efforts to isolate any problems with the VoIP Service Equipment that reside on Customer’s site and send a technician to Customer site if necessary; and,

   b. if the Company, in its sole discretion, determines that any VoIP Service Equipment that resides on Customer’s premise needs to be replaced, such equipment will be replaced with equipment in good working order and of like kind and functionality from a manufacturer of the Company’s choice at the time of replacement).

   c. Maintenance Services shall only apply to problems arising out of the normal use of VoIP Service Equipment and shall not apply if VoIP Service Equipment is damaged as a result of the negligence or willful misconduct of Customer. If repair and/or replacement is required because of damage caused by Customer’s negligence or willful misconduct, Maintenance Charges will apply.

2. **Verizon’s Alternate Route Recovery Service (“VARRS”).** The configuration of CPE required specifically for VARRS is the Customer’s responsibility upon implementation. The configuration requirements will be noted in the Company-approved design. Failure to implement these requirements could result in VARRS not working properly.
3. **Post-Implementation Trouble Management.** Should Customer require Company assistance in post-implementation trouble management, the Company is limited to assisting with the following activities, pursuant to Customer’s Agreement, as supplemented by the respective section(s) of this Guide: (a) Clear any troubles within the Company network up to the point of demarcation between Customer site and the Company network. In order to clear troubles up to the point of demarcation, the Company may request Customer make available to the Company the router vendor or a qualified Customer employee for the purpose of trace route testing. Should Customer have ISDN PRI Service from the Company to interoperate with Customer’s VoIP service, the vendor or a qualified Customer employee who has technical expertise to include knowledge of ISDN D channels, ISDN layers 1, 2 and 3, ISDN circuit configurations on Customer’s Gateway Router and advanced telephony principals must be provided, and (b) Provide Customer with additional copies of the original router configuration at the time implementation was completed and VoIP was handed-off to Customer for on-going maintenance and management. In this scenario, the Company may request that Customer provide temporary out-of-band access to Customer’s router for the purposes of troubleshooting and/or restoring router configuration to its original state at the time implementation was completed and VoIP was handed-off to Customer for on-going maintenance and management. Should temporary out-of-band access not be provided to the Company, the Company may work with Customer via e-mail or the telephone for trouble shooting or configuration purposes. Should temporary out-of-band access not be provided to the Company and work cannot be accomplished via e-mail or the telephone, then Customer will be required to call on its equipment vendor to work with the Company or an on-site Company technician can be provided to Customer at an additional charge.

**Section IV: Service Level Agreement.**
Service Level Agreements (SLAs) for VoIP are set forth at [http://www.verizonbusiness.com/terms](http://www.verizonbusiness.com/terms). Company reserves the right to amend these SLAs from time to time, effective upon either posting of the revised SLA to that URL or providing other notice to Customer. These SLAs set forth Customer’s sole remedies for any claim relating to VoIP (including the related Internet Dedicated Services and Private IP Service), including any failure to meet the conditions set forth in these SLAs. Company’s records and data are the basis for all SLA calculations and determinations.