

**VENDOR NAME: FRONTIER (SBC SNET)****SERVICE/PRODUCT NAME: ISDN BRI and PRI Service: BRI Service – Digital Enhancer****SERVICE/PRODUCT DESCRIPTION:****FRONTIER (SBC SNET) BRI Service**

Integrated Services Digital Network (ISDN) Basic Rate Interface (BRI) is a digital communications technology that transmits data and voice traffic simultaneously over one line. FRONTIER (SBC SNET) supports the National ISDN 1 format and calling line identification. Conventional telephone circuitry is analog: sound waves are converted into electrical pulses that travel over copper wire. Analog signals tend to weaken and become distorted over distance. ISDN BRI transmits signals over the same copper wire, but it uses a digital language of ones and zeros.

ISDN BRI facilitates the use of high-bandwidth applications such as videoconferencing through dynamic channel transmission. Your hardware may be able to multiplex, or "bond," two ISDN channels to double transmission capacity. Additionally, it is possible to create a digital "pipe" with even greater capacity by bonding multiple ISDN lines.

Using the basic rate interface, ISDN transmits data digitally over the two 64 Kbps channels on a common, twisted-pair copper phone line. The 64 Kbps channels (also called the B-channels) provide high bandwidth for carrying the voice, data, and video signals you send. A third, 16 Kbps channel (also called the D-channel) carries signaling information that controls the B-channel connections.

The standard Digital Enhancer line comes equipped with two 64Kbps switched digital "B" Channels and one 16 Kbps packed service "D" Channel. The "B" channels will be configured with Alternate Voice/Data capabilities and the "D" channel will be for signaling.

- B-channels—Either of the two B-channels (or "bearer" channels) can carry a circuit-switch voice conversation; a circuit-switched, high-speed data transmission; or several lower-speed data transmissions that have been multiplexed into one 64 Kbps signal as 2B+D. This service requires two "spids" telephone numbers to identify each of the B channels. The data transmitted can be any medium: text files, graphics, video, or sound. For greater bandwidth, the B channels may be combined to transmit at 128 Kbps without compression as 1B+ D service. This requires one "spid", telephone number to identify the combined B channel. For applications requiring even greater bandwidth (384 Kbps videoconferencing, for instance), multiple ISDN lines may be combined as Tri- BRI. The B-channels will also transmit packet-switched data. The lines may be configured as 2B+D or 1B+D depending on the equipment specifications.
- D-channel—The D-channel (or "delta" channel) controls B-channel connections by carrying signaling information. The D-channel exchanges messages between the network and your equipment to establish calls, request services, and exchange other detail about calls. To process calls, the D-channel uses out-of-band signaling to improve efficiency. Calls are set up in about two seconds, whether you are calling across the office or around the world. In contrast, in-band signaling common to analog voice and data connections can take as long as 20 seconds, and the "handshake" for data connections between your modem and the modem where you are calling can add another 30 to 60 seconds. The D-channel is also available to transfer packet-switched data for even greater efficiency.

**Custom Location Alternate Routing (CLAR)**

Custom Location Alternate Routing (CLAR) is an Intelligent Network-based service that allows the customer to safeguard against the loss of incoming calls due to circumstances that make the customer's location inaccessible (i.e., disaster, fire, flood, cable cut, etc.). CLAR service allows the customer to develop and maintain alternate routing plans that can be activated to reroute incoming calls to predetermined alternate customer locations. CLAR service also provides the customer the ability to route inbound calls based on customer-defined call traffic management conditions.

CLAR is available on Analog Lines and Trunks (CentralLink 1100), Digital Trunks over T-1(Basic Multipath), Centrex lines (DCOSS, ISDN, CentralLink 2100 and 3100), DID numbers, PRI (Enhanced Multipath) and BRI service. The customer may activate CLAR alternate routing plans 24 hours a day,

seven days a week. A customer can define up to nine alternate routing plans with a maximum of 10,000 protected telephone numbers. Only one plan can be active at any given time.

Should an emergency arise, the customer activates and deactivates their CLAR plan via any touch-tone phone using a 6 digit pin number. The CLAR customer must specify an actual 10-digit number as the destination number for each protected number in each plan. The destination number can be any 10-digit number, including Cellular service. CLAR offers three optional routing features: Day of Year, Time of Day/Day of Week, and Percentage Allocation:

When dialing in to their plan the customer will be able to:

1. Choose the current destination option (i.e. activate or deactivate the CLAR)
2. Hear the mapping of protected Telephone numbers to destination numbers in each destination option
3. Hear whether or not they have Time-of-Day, Day-of-Week, Day of Year, or Percentage Allocation routing, but not hear the details of those configurations
4. Change their PIN

The CLAR customer is responsible for the payment of any applicable station-to-station charges for each call between the central office where the CLAR protected numbers reside and the telephone number to which the call is being rerouted. The customer is also responsible for establishing sufficient capacity of facilities at the forward-to destination to handle the volume of calls being forwarded via CLAR.

### **National Security Emergency Preparedness (NS/EP) Telecommunications Service Priority (TSP) System**

In 1988, the Federal Communications Commission revised the Restoration Priority System with the National Security Emergency Preparedness (NSEP) TSP System. This system ensures priority treatment of restoration to telecommunication services following natural or technical disasters.

TSP assigned telecommunication services are provisioned and restored before non-TSP services. Any Federal, State and local government, private industry or foreign government with telecommunications services supporting a national security or emergency preparedness mission qualifies for TSP.

#### Provisioning

If FRONTIER (SBC SNET) receives an Emergency (E) provisioning priority it must take immediate action to provide the service at the earliest possible date, including dispatching service personnel outside of normal business hours. The FCC order requires that service vendors provision Emergency (designated by an E) TSP services before any Essential (designated by a 1, 2, 3, 4, or 5) TSP service or non-TSP services. The order processing is escalated up through management as far as necessary to complete the order. Service vendors receiving service requests with an Essential provisioning priority must make their best effort to provide the TSP services by the service user's requested due date.

#### Restoration

When a trouble report is received, or FRONTIER (SBC SNET) otherwise recognizes that the TSP circuit is out or unusable, it must allocate available resources to restore the service as quickly as possible. TSP services assigned restoration priorities of 1, 2, or 3 require dispatch outside normal business hours. Vendors must dispatch service personnel outside normal business hours to restore TSP service assigned a 4 or 5 priority only when the next business day is more than 24 hours away.

#### Sponsorship

The FCC designated the Executive Office of the President (EOP) as administrator of the TSP Program. The EOP delegated its responsibilities to the Manager of the National Communications System (NCS), which, in turn, assigned the administration and execution of the TSP Program to the Office of Priority Telecommunications (OPT) located at the NCS. The primary roles of a Federal sponsor are to:

- Review and determine whether to approve foreign, State, and local government and private industry requests for priority actions.
- Affirm that the requested priority level assignment is appropriate.

Sponsorship for TSP may be obtained from the National Communications System through the TSP Web Site at <http://tsp.ncs.gov>.

## **SERVICE LEVELS:**

### **Installation Intervals**

#### BRI

Less than 10 lines = 9 business days

10 or more lines = Individual Case Basis

#### CLAR

Less than 100 numbers = 10 business days

100 or more numbers = Individual Case Basis

#### Activation/Deactivation Intervals

Less than 1 minute

### **Routine Repair Intervals**

#### BRI

Response time = Less than 1 hour

Repair Resolution time = 4.7 hours or less

#### CLAR

Response time = Less than 1 hour

Repair Resolution time = 4 hours or less

### **Repair Service Level Definitions:**

Repair Response is the time elapsed between when FRONTIER (SBC SNET) receives a report of a problem or otherwise becomes aware of a problem, and the time that FRONTIER (SBC SNET) responds to the end user or other designated contact to verify the problem.

Repair Resolution Time means the elapsed time between when the State notifies FRONTIER (SBC SNET) of a problem, and the time that FRONTIER (SBC SNET) restores service and such service is acceptable to the State.

## **SERVICE AVAILABILITY/LIMITATIONS:**

See Service Availability spreadsheet

#### BRI

(An interoffice loop extender may be required from certain serving Central Offices).

#### CLAR

CLAR is available on Analog Lines and Trunks (CentraLink 1100), Digital Trunks over T-1(Basic Multipath), Centrex lines (DCOSS, ISDN, CentraLink 2100 and 3100), DID numbers, PRI (Enhanced Multipath) and BRI service.

#### LIMITATIONS

- CLAR will not handle the loss of the serving FRONTIER (SBC SNET) Central Office where the customer's main telephone numbers reside
- CLAR is not available on Residence lines

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**SERVICE NAME: ISDN PRI AND BRI - BRI Service- Digital Enhancer**

A 2% credit will be issued monthly against the items ordered from this Product Schedule per the FRONTIER (SBC SNET) Master Agreement

Activity (Add, Delete, Change)	Date of Vendor Request	Date Approved By DAS	Item	Item Code	Description of Service/Equipment	Unit	*Non-Recurring Monthly Cost	Recurring Monthly Cost
Add	09/14/15	02/05/16	1	IFG76 B1IC2	BRI - Digital Enhancer Line (2B+D) (Note 1)	line	\$150.00	\$37.50
Add	09/14/15	02/05/16	2		Electronic Key Enhancer Service	line	\$40.00	\$5.00
Add	09/14/15	02/05/16	3		Call Appearance up to 10 buttons	set	\$25.00	\$1.50
Add	09/14/15	02/05/16	4		Call Appearance up to 20 buttons	set	\$50.00	\$3.00
Add	09/14/15	02/05/16	5		Call Appearance up to 30 buttons	set	\$70.00	\$4.50
Add	09/14/15	02/05/16	6		Call Appearance up to 40 buttons	set	\$100.00	\$6.00
Add	09/14/15	02/05/16	7		Call Appearance up to 50 buttons	set	\$115.00	\$7.50
Add	09/14/15	02/05/16	8		Call Appearance over 50 buttons	set	\$130.00	\$8.00
Add	09/14/15	02/05/16	9		High Speed Packet- per channel	ch	\$50.00	\$24.00
Add	09/14/15	02/05/16	10		Low Speed Packet- per channel	ch	\$25.00	\$6.00
Add	09/14/15	02/05/16	11	IFG77 ISDLN	Line Sharing- per terminal (device)	term	\$15.00	\$7.50
Add	09/14/15	02/05/16	12	IFG78	Secondary Directory Number-per SPID (tn)	tn	\$15.00	\$2.00
Add	09/14/15	02/05/16	13		Integration Access Links (SMSI VM link)	line	\$265.00	\$135.00
Add	09/14/15	02/05/16	14		Feature Change Charge	ord	\$33.00	\$0.00
Add	09/14/15	02/05/16	15	IFG79 FXREF	Interoffice Loop Extender	line	\$75.00	\$60.00
Add	09/14/15	02/05/16	16	IFG80	Wire Maintenance- per SPID	tn	\$0.00	\$1.95
Add	09/14/15	02/05/16	17	IFG81 EUI06	BRI Federal Subscriber Line Charge	line	\$0.00	\$5.78
Add	09/14/15	02/05/16	17a	IFG82 EUIBI	BRI Line Port Charge (Note 1)	line	\$0.00	\$2.21
Add	09/14/15	02/05/16	18		Usage on Local Data Circuit Switched (calls \$.01 per min per B ch)	min	\$0.00	\$0.01
Add	09/14/15	02/05/16	19	IEV52	TSP Priority Installation	line	\$113.59	\$0.00
Add	09/14/15	02/05/16	20	IEV53	TSP Priority Restoration	line	\$101.82	\$0.00
Add	09/14/15	02/05/16	21	IEV54	TSP Priority Restoration change level	line	\$6.47	\$0.00
Add	09/14/15	02/05/16	22	IEV55	TSP Priority Restoration maintenance	line	\$0.00	\$8.82
<b>CLAR</b>								
Add	09/14/15	02/05/16	23	NX540	Service establishment Plan 1	plan	\$350.00	\$0.00
Add	09/14/15	02/05/16	24	IEL02	Protected number- Plan 1	tn	\$10.00	\$4.00
Add	09/14/15	02/05/16	25	IEL03	Add alternate routing Plan 2-9	plan	\$70.00	\$70.00
Add	09/14/15	02/05/16	26	NX543	Protected number per addl routing Plan 2-9	tn	\$1.50	\$0.00
Add	09/14/15	02/05/16	27	NX544	Routing plan change per tn (1-9)	tn	\$10.00	\$0.00
Add	09/14/15	02/05/16	28	IEL06	Calendar Routing :Time of Day / Day of Week /Day of Year	app	\$70.00	\$70.00
Add	09/14/15	02/05/16	29	IEL07	Percentage allocation routing	plan	\$70.00	\$70.00
<b>E911 Surcharge</b>								
Add	09/14/15	02/05/16	30		E911 Surcharge - 1 Line (Per Line Per BTN)	line	\$0.00	\$0.47
Add	09/14/15	02/05/16	31		E911 Surcharge - 2 Lines (Per Line Per BTN)	line	\$0.00	\$0.35
Add	09/14/15	02/05/16	32		E911 Surcharge - 3 Lines (Per Line Per BTN)	line	\$0.00	\$0.31
Add	09/14/15	02/05/16	33		E911 Surcharge - 4 - 5 Lines (Per Line Per BTN)	line	\$0.00	\$0.28
Add	09/14/15	02/05/16	34		E911 Surcharge - 6 - 10 Lines (Per Line Per BTN)	line	\$0.00	\$0.24
Add	09/14/15	02/05/16	35		E911 Surcharge - 11 - 25 Lines (Per Line Per BTN)	line	\$0.00	\$0.19

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Add	09/14/15	02/05/16	36		E911 Surcharge - 26 - 50 Lines (Per Line Per BTN)	line	\$0.00	\$0.16	
Add	09/14/15	02/05/16	37		E911 Surcharge - 51 - 99 Lines (Per Line Per BTN)	line	\$0.00	\$0.12	
Add	09/14/15	02/05/16	38		E911 Surcharge - 100+ Lines (Per Line Per BTN)	line	\$0.00	\$0.09	

\* NRC applies to new FRONTIER (SBC SNET) services only

**NOTE: Grey highlighted items are no longer available. They have been either deleted, changed, and/or no longer apply.**