

Network IVR Service Features

- IP and TDM termination route plans
- Unattended and Attended DTMF Transfers
- (TakeBack-and-Transfer -TNT)
- Small Office / Home Office (SOHO) SIP Device Registration
- Intelligent Contact Routing Gateway (pre/post call routing)) for Cisco and Genesys
- Intelligent Contact Routing Integration (pre/post call routing, treatment and queuing) for Cisco and Genesys Intelligent Call Routers
- User to User Interface support for Avaya standards (RFC) recommendation
- Full compatibility with Enhanced Call Routing Features:
 - Menu Routing
 - Message Announcement
 - Busy/Ring-No-Answer (B/RNA) w/Custom-Treatment
 - Standard Database Routing
 - Network Database Routing
 - Announced Connect
 - Caller TakeBack & GiveBack
 - TakeBack and Transfer (TnT)
 - Standard Reports
 - Customized Call Records (CCRs)
 - Survey (CCRs only)
 - Dealer Connect Dealer Connect (Network Database

IP Interactive Voice Response (IP IVR) Features and Benefits Matrix

IP IVR provides network-level IVR call treatment and routing for IP Contact Centers, using Session Initiation Protocol (SIP) signaling per IETF RFC 3261, as well as seamless call treatment and transfers for "hybrid" (TDM and IP) Contact Center locations.

Feature	Description	Benefit to the Customer
Carrier-grade IP infrastructure for call treatment and routing	Toll-Quality voice, fully redundant and managed network capacity.	Provides high-capacity, native-IP IVR functionality that extends the benefits of IP CPE deployments without added protocol conversions.
Robust IVR call treatment and routing capabilities	Support currently available network IVR features such as menu routing, transfer, message announcement and others.	Allows the re-use of existing Network IVR (Hosted IVR-ECR) application call flow logic with few migration design requirements.
Hybrid terminations (TDM and IP) and transfers	Terminate to and transfer from both, TDM and IP end-points.	Provides seamless integration of TDM and IP call types and allows customer to migrate to IP at their own pace.
IPCC Network Service Level Agreement	Provides performance metrics and guarantees for VOIP Inbound IP Contact Center Services which include Network Availability, Time to Repair (TTR), Mean Opinion Score (MOS) and Jitter	Provides motivation to deliver the highest standards of service performance and a framework to process potential service claims

Network Call Redirect (NCR)	Redirect or overflow calls in real-time according to outage, busy, or other customer-specific conditions using both SIP error and ISUP (ISDN User Part) cause factors.	Provide seamless routing and overflow for both TDM and SIP end-points. NCR's call-by-call overflow functionality is programmed via Toll Free Network Manager (TFNM), a web-based application.
SIP REFER Transfer (RFC 3515)	A SIP REFER request enables the sender to instruct the receiver to contact a third party -with the contact details of the third party included in the request.	IPIVR supports SIP REFER transfers (blind transfers) between SIP devices. Note: SIP REFER Transfers must be initiated through SIP signaling (not DTMF), must terminate to another SIP device and cannot provide progress messages or error recovery.
SIP REFER with REPLACES Header Transfer (RFC 3891)	A SIP REFER with REPLACES Header transfer allows an agent to place a caller on hold, dial a transfer location and speak with another agent before hanging up and having the network bridge the caller to the second agent.	Provides attended network-based SIP signaling transfers (not DTMF tones) to support more traditional and Contact Center transfers to enhance the caller experience.
IP IVR Transfer (TNT)	Capability to transfer calls via DTMF and SIP REFER Transfer commands.	Support Attended and Unattended agent transfers from IP or TDM terminations via SIP REFER Transfer or DTMF.
Integrated Routing Tree (ICT)	Integration of Toll Free and Network IVR features which allows customers to build and maintain their Call Routing and Treatment plans online	Provides customers near-real-time control of the design and maintenance of their solutions using a combination of callers' menu choices, time of day, database lookups, caller-entered digits, and other features via Network Manager.
NGSN IP Terms	SIP call terminations connecting Toll Free calls that are processed by the ECR TDM platform (NGSN) to a Customer's IP Contact Center using Verizon's VoIP Inbound service.	Offers terminations for an existing network IVR (ECR) application.
G.711 Codec Support (Recommended codec for Speech Recognition, Music, DTMF and fax tones)	G.711 is a standard for audio compression. It represents 8 bit compressed PCM samples for signals of voice frequencies, sampled at the rate of 8000 samples/second and 8 bits per sample.	Provides acceptable Toll-Quality Voice (4.3 Mean Opinion Score) and leverages 64kbps bit rate (approximately 80kbps with overhead) to provide converged access with seamless DTMF and SIP transfers as well with reliable transmission for Speech Recognition and Fax applications.

IP Intelligent Call Routing Integration	Provides a customer real-time capability to control network based IPIVR resources by management of the treatment, routing and queuing of their calls, before, during or after they are handled by their Contact Center Agents.	Offers capability of utilizing a customer's current premise based equipment (Cisco & Genesys Intelligent Routers).
User to User Interface (UUI)	A method of passing information from one user agent to another via SIP. This information is transmitted in a SIP Header during a REFER transfer between two IP End-points.	Allows the transfer of caller information other call data from one agent to another during a call transfer to increase service quality and Contact Center effectiveness
Simple system for migrating Hosted IVR - ECR applications	Dedicated team and proven process to migrate network-IVR (ECR and other carrier) applications.	Allows existing customers to add IP functionality without rewriting complex applications and scripts.
Dynamic DNIS (Set Dynamic User SDU)	Dynamic DNIS (SDU) allows IPCC customers to dynamically override the user portion of an IP Termination (URI) from within their routing plan. During call processing. Similar to how a SDN - Set DNIS node type works for TDM logical terminations. NOTE: Customers may choose from two DNIS delivery options for their IP Contact Center location. Dynamic Dialed Number Identification Service (DNIS) can be delivered via Proprietary Headers and/or via Dynamic User (aka Dynamic DNIS/URI).	<ul style="list-style-type: none"> • Provisioned via TFNM and does not require new/additional charges • Supports delivery of up to 30 alphanumeric characters to the IP CPE in the User Portion of the Request URI. • Dynamic DNIS is also delivered to the VEC Portal (displayed in the Inbound Call Detail Traffic Reports) and to the Verizon Business billing systems (displayed in the Invoice Call Detail)
Calling Party Name (CNAM)	CNAM allows IPCC (Toll Free, Local Origination and IPIVR) Customers to receive the Name of their callers, in addition to their Caller ID (ANI). IPCC delivers the Calling Party Name in the INVITE to the customer via an option tag field called "display-name" (P-Asserted-ID: "calling-name"<719333555@domain>)	Contact Center Agents can use the Calling Party Name to provide more effective service and an improved caller experience.
Network Event Notifications (NFY)	Notify (NFY) functionality allows customers to define specific events, within a routing plan for a Toll Free or Local Origination Number, to trigger an event notification email to a pre-defined address. Customers define event	Customers can be notified when their TF or Local Originating (VILO) calls are not processed as expected

	attributes and select their placement/trigger within a number's routing plan	
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VoIP Inbound and IP Interactive Voice Response (IVR) Call Flows

The IP Contact Center offerings, VoIP Inbound and IP IVR, work by extending the intelligent routing and call treatment capabilities of the Verizon Toll Free network.

- VoIP Inbound extends Verizon's Toll Free intelligent routing and call treatment capabilities to Voice over IP contact center applications.
- VoIP Inbound Local Origination provides Verizon Local telephone numbers with the same intelligent routing, call treatment, and management capabilities typically used to connect toll-free calls to contact centers.
- IP IVR provides customizable treatment, routing, and transfers for VoIP Inbound calls that allow seamless interworking between customer IP and TDM contact centers with the Verizon SS7 (PSTN) and IP networks.

VoIP Inbound Toll Free and IP IVR extend the capabilities of the Toll Free network to both TDM and IP contact center locations. The caller continues to dial a toll free number (8XX, ITFS, or UFIN) into the Public Switched Telephone Network (PSTN); however, instead of connecting the call to a TDM termination, the Verizon network routes the call to the IPCC platform for intelligent routing and/or network IVR call treatment before the call is terminated to appropriate TDM or IP customer location.

- When the Verizon network receives the Toll Free call, the processing Switch sends a routing request to the network Service Control Point (DAP). If the Toll Free number has not been provisioned for VoIP Inbound Toll Free service, the call proceeds as a normal Toll Free call. If the route plan includes a URI, the DAP routes the call to a Packet Voice Network Gateway, which sends a SIP INVITE message to the IPCC Service Controller (SC) for intelligent routing and/or IVR call treatment before termination to a customer IP or TDM contact center location.

VoIP Inbound Local Originations and IP IVR provide the capabilities of the Toll Free network to Verizon local numbers. The caller continues to dial a local number (NPA-NXX-XXXX) into the Public Switched Telephone Network (PSTN); however, when a call is received, the call is routed by the Verizon VoIP network to the IPCC platform for intelligent routing and/or network IVR call treatment before the local call is terminated to appropriate customer location.

- When the IPCC platform receives the call INVITE from the Verizon VoIP local network, it queries the network Service Control Point (DAP) for intelligent routing, IP IVR call treatment, and/or termination to a customer IP or TDM contact center location.

VoIP Inbound calls are proxied by the Service Controller and physically internet worked (SS7 to IP and IP to SS7) by the IPCC Network Gateways. The Verizon Network Gateways negotiated codec between the SIP end points (G.711 or G.729a), convert the calls to SIP (RTP packets) and activate media connections to IP IVR or customer SIP terminations (Internet Dedicated Access, Private IP) that are compliant with IETF RFC 3261, and which may be located in many locations around the world (subject to regulatory restrictions).