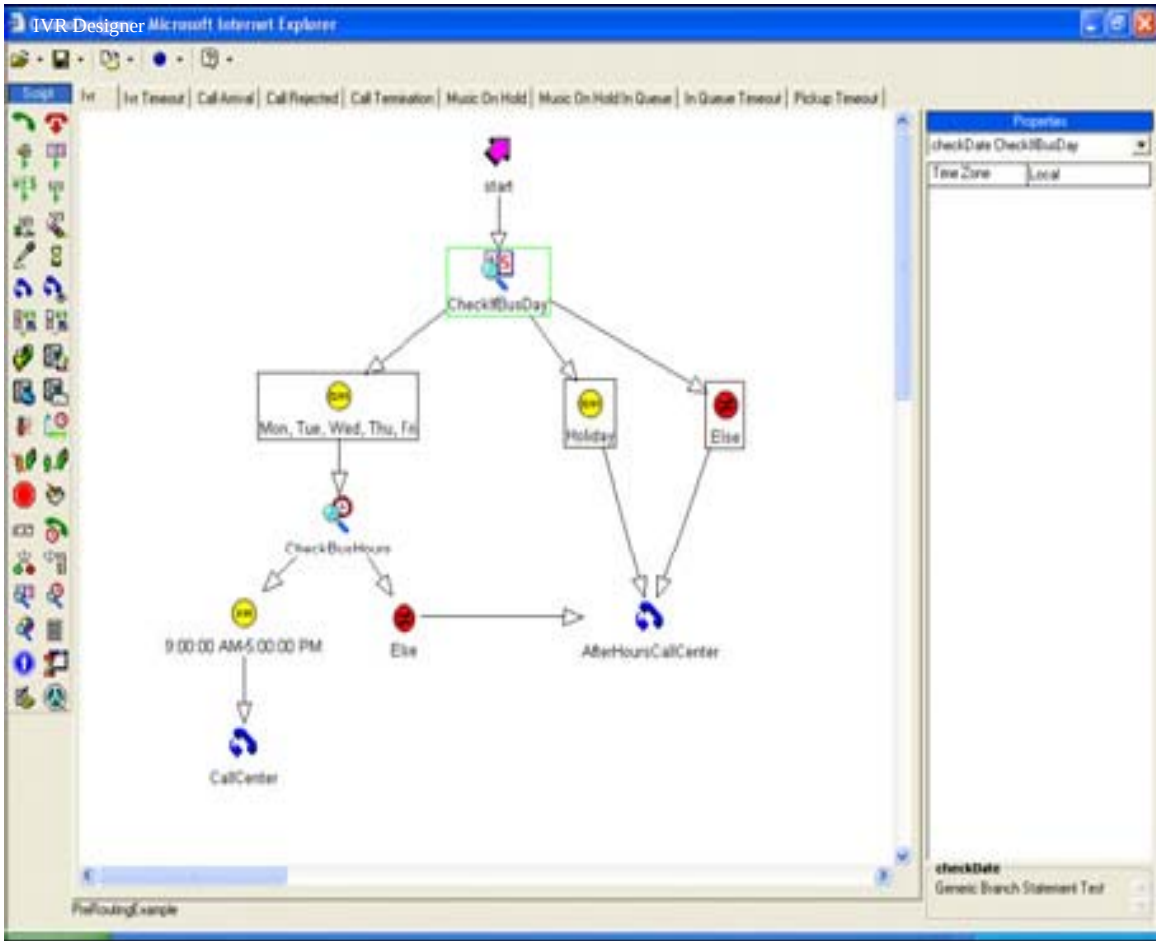
Interactive Voice Response (IVR)

The IVR system is an XML-based, comprehensive suite of capabilities to address self-service voice portal applications and prompt-response dialogues. It can be used as a standalone component or as a unified part of the contact centre platform. The software-only architecture requires only standard computing elements, without any special Digital Signal Processing (DSP) resources. IVR call flows are designed with IVR Designer, a robust service creation tool.

IVR Designer tool:



IVR Designer and IVR Features

IVR Designer	IVR Designer is a browser-based graphical tool for call flow generation and service creation. It is a drag-and drop tool, which makes it easy for users to design call flows and IVR applications with no programming. IVR Designer has a few main classes of capabilities: • Media: Play Announcements, Play Date, Collect Digits, Record Messages, etc. • General Logic: Menus, Conditional branch, switch, check time/date, etc. • ACD Logic: Set and Adjust Queue, Skills, Priority, etc. at any point in call • Call Control Logic: Answer, Transfer, Hang-up, etc. • External logic: Read/write data from remote database and access external routing logic Once the call flow has been laid out using IVR Designer, the call flow is turned into XML format and published to an internal or external web server. Databases can be stored as XML tables, and accessed easily and conveniently using standard IVR Designer tools.
Access to External Application Logic	Routing rules and other application logic may be entirely contained within the platform, or may be dependent on data and logic that resides in an external system located in any location. The interface to external data and logic is typically based on XML, providing a simple, standard, and secure way for customers to utilize and control network resources to deliver their own data-driven applications. A simple example application would be to look-up into external databases or CRMs to determine whether or not a caller is a “Gold” customer, and should be given priority treatment when routed to an ACD agent. More complex applications could involve electronic stock trading or other advanced self-service functions.
Unlimited Announcements and IVR Branching	The IVR platform allows the contact centre to load unlimited announcements, which can be stored in the database, or on a web server (retrieved via URL). Additionally, there is no limit to the number of IVR options and branches that can be created. Both complex IVR applications and self-service IVR applications can benefit from this greatly.
Real-Time Updates that Are Centrally Administered	The IVR platform allows for live updates of announcements and logic without interruption of calls-in-progress. Calls-in-progress continue to use the old logic, while incoming calls use the updated logic. Updated logic is automatically distributed to all relevant elements of the system regardless of location.
Interface to Circuit and Packet Networks	The IVR is equally at home connecting to a circuit-based network or an IP-based network. The IVR platform connects directly to IP-based

	networks, and connects to circuit networks via industry-standard VoIP gateways and softswitches from a variety of vendors. When migrating from using the system in a circuit network to using it in an IP telephone network, all equipment is re-used as is.
End-to-End Call Control	IVR Designer is used to dynamically control call handling from the time it enters the system to the time it is terminated. This includes changing queue, skills, and priority while the call is waiting in the queue, or sending the call to voice mail if there are no agents available to handle the call. Special logic can also be applied while the caller is waiting in queue, if an assigned agent does not pick up a routed call, when the call is terminated, and on other call-related events.
Open Architecture	The architecture uses standard XML call processing language for call processing, and provides open, standards based interfaces to draw on external routing logic and data when required. The IP IVR interfaces to the circuit telephone network via any standards-based VoIP Gateway using the SIP and H.323 protocols.
Economical, Pure Software Architecture	Unlike traditional IVR platforms that use proprietary hardware, 's software-only architecture runs on the CPU of standard servers. This makes the solution extremely economical to scale up or scale down, and makes it future-proof since there is no specialized hardware to become obsolete.
Scalable and Modular	The IVR platform uses an *n+1* architecture to enable multiple separate servers to form a single logical IVR system. The system scales from a few ports on one or two servers, up to a virtually unlimited number of ports.
Carrier-Grade Reliability	The platform is designed with no single point of failure, and is designed with *n+1* sparing, which enables high availability at commodity hardware prices.

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