



Project Background and Purpose

A major Canadian Multimedia Services provider identified a need for NTG Clarity to develop a Multimedia Self-Service and Booking System to capture and track service order requests for real time network capacity using Audio and Video multimedia products and services. These requests would be placed by the company broadcasting customers in North America and the company business offices serving this market. Multimedia products are organized into Audio and Video, with real time streaming of Video signals using MPEG (Motion Pictures Expert Group) or uncompressed SDI (Serial Digital Interface) media protocols. The system was designed to be a Web enabled interactive e-business solution using an Internet GUI for user interaction with an interface to the NTG Clarity Smart2Go software tool to perform the system functionality. Smart2Go is a proprietary NTG Clarity rapid applications development tool based on Java technologies and W3C (World Wide Web Consortium) standards. It is a Web based system that has the capabilities to generate application code interfaces among systems in an Internet environment. Based on J2EE (Java2 Enterprise Extension) architecture and standards, Smart2Go can generate Web applications from XML (eXtensible Markup Language) using XSLT (eXtensible Stylesheet Language Transformation) designed to transform one XML document to another. Smart2Go was used in the development of the Multimedia Self-Service and Booking System to develop the system interfaces and the data model transformation algorithms between the Engineering Provisioning and Reservation System, the Billing System and the Distribution System for offline communication and provisioning (Envoy). Smart2Go uses Oracle as an RDBMS database but is not limited to a particular database and may be adapted to use others.

Main System Features:

The Multimedia Service Self-Booking and Reservation (Digital Video) system provides for the following overall functionality.

- Capability to create, retrieve, view, modify and cancel service order requests fro booking real-time streaming Video services using MPEG or SDI media protocols, along with real-time network capacity reservation.
- Capability to create, retrieve, view, modify and cancel service order requests for booking real-time streaming Audio services with manual provisioning.
- Capability to create, retrieve, view, modify and cancel service order requests for expanding the network with broadband network to new locations.
- Provide flow-thru for real-time broadband network bandwidth checking and reservation via an interface to the company Provisioning System for Digital Video.
- Provide an interface to the main Billing System.
- Provide an interface to the company Distribution System to modify the reservations, and offer offline communication and provisioning.
- Allow for the ability to filter and show enterprise specific orders.
- Provide an interface to the Multimedia Services company Portal for authorization and security.

Accomplishments and Results:

The Multimedia Service Self-Booking and Reservation (Digital Video) system was successfully developed and implemented for the Canadian Multimedia Services provider.