



# CLASS 5 DERIVED VOICE OVER BROADBAND



# Class 5 Derived Voice over Broadband



GENBAND's G6 Universal Media Gateway  
Rated Best in Access and Trunk Media  
Gateway Categories

## Carrier Class Media Gateway for Class 5 Voice Services Over Any Broadband Network

The award-winning G6® Universal Media Gateway enables rapid deployment of broadband access networks and utilization of Class 5/LEX assets, with an easy transition to next generation switching.

### Business Requirement

Service providers are deploying packet-based access architectures such as FTTx, IPTV, T1/E1/PRI, broadband wireless, and DSL for high speed data and video services. They are currently using reliable Class 5/Local Exchange switches to provide voice services and features over their own or leased circuit-based access plant. Because these Class 5/LEX assets continue to provide significant value and are tightly integrated into all systems and processes, service providers are looking for ways to use these Class 5/LEX switches to provide voice services over packet networks.

### Technical Challenge

In order for circuit-based Class 5/LEX switches to provide voice services and features over packet-based access architectures, a Class 5 Access Gateway is needed for two primary purposes: 1) to convert circuit-based voice to packet voice, and 2) to interwork Class 5/LEX signaling protocols (such as "off-hook") with packet protocols so that Class 5/LEX features can be provided to phones over the packet network.

### Solution

GENBAND's G6 Universal Media Gateway is one of the world's most widely-used platforms to bridge packet access networks to Class 5/LEX switches, using standard Class 5/LEX interfaces such as GR-303, TR-08, and V5.2. The G6 platform is widely used by service providers because of its rich feature support and extensive interoperability with packet CPE (IADs, MTAs, ONTs) and access platforms.

### Benefits

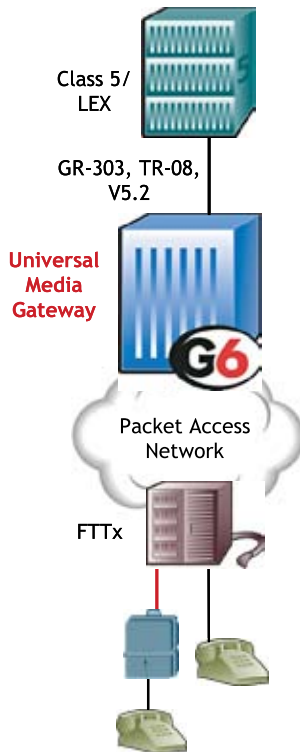
- Leverages Existing Assets – extends Class 5/LEX switches and features across new packet networks
- World-Class Reliability – a NEBS-3, RUS, and TL9000 certified platform, completely redundant, hitless upgrades, billions of in-network minutes
- Unmatched Interworking Flexibility – supports GR-303, TR-08, V5.2, CAS, and PRI circuit interfaces as well as H.248, BLES and MGCP endpoints
- Broadens Service Coverage -- line and trunk-based services are supported, including dynamic voice and circuit emulation services for T1/E1/PRI and PBXs
- Reduces Access Costs – allows multiple voice lines and data over a single broadband facility, reducing costs of maintaining or leasing circuit access
- Assets are Re-used -- G6 easily transitions to provide Trunking Gateway and Packet Line Gateway services in SIP and IMS architectures

## Case Study 1 – Extending Class 5 Life

Fixed Line Operator A provides Class 5 voice services over its primarily copper-based access networks and is also deploying fiber-based access for a Triple-Play. Next Generation call control is currently deployed to meet particular service needs, but extensive operational, systems, and regulatory changes will be required over a long period of time before Class 5/Local Exchange switches are fully retired.

Fixed Line Operator A implements a Class 5 Derived Voice over Broadband program. It uses a G6 platform to connect its FTTx network to its Class 5/LEX switches. All Class 5/LEX features are transparently passed through the network.

The G6 platform lets Fixed Line Operator A proceed forward immediately on deploying its FTTx networks. As migration to Next Generation networks and IMS occurs, the G6 platform provides additional gateway functions such as PSTN trunking and connecting legacy access to Next Generation call control.

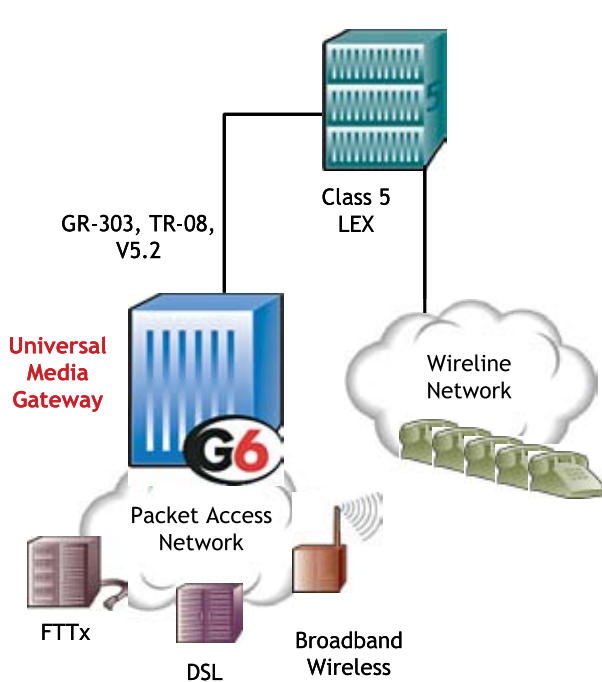


## Case Study 2 – Network Transition

Fixed Line Operator B has both IP and ATM-based access networks deployed today including FTTx, DSL, and Broadband Wireless to enable video and data services. In the future, it plans to replace its Class 5/LEX switches with Next Generation or IMS call controllers, but it has limited resources to make the change rapidly. However, Marketing is clamoring for immediate revenue growth from voice services.

Fixed Line Operator B implements a Network Transition plan. G6 platforms are used to connect all of the IP and ATM-based access networks to the company's Class 5/LEX switches.

The G6 platform allows Class 5-based voice services to be provided immediately over the growing packet networks -- including simultaneous support for ATM and IP access -- giving the operator transition time to migrate its network. As Next Generation services are implemented, the same G6 platforms are used simultaneously for PSTN trunking.



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