NBK 3-6-07 (entire document)

DECLASSIFIED

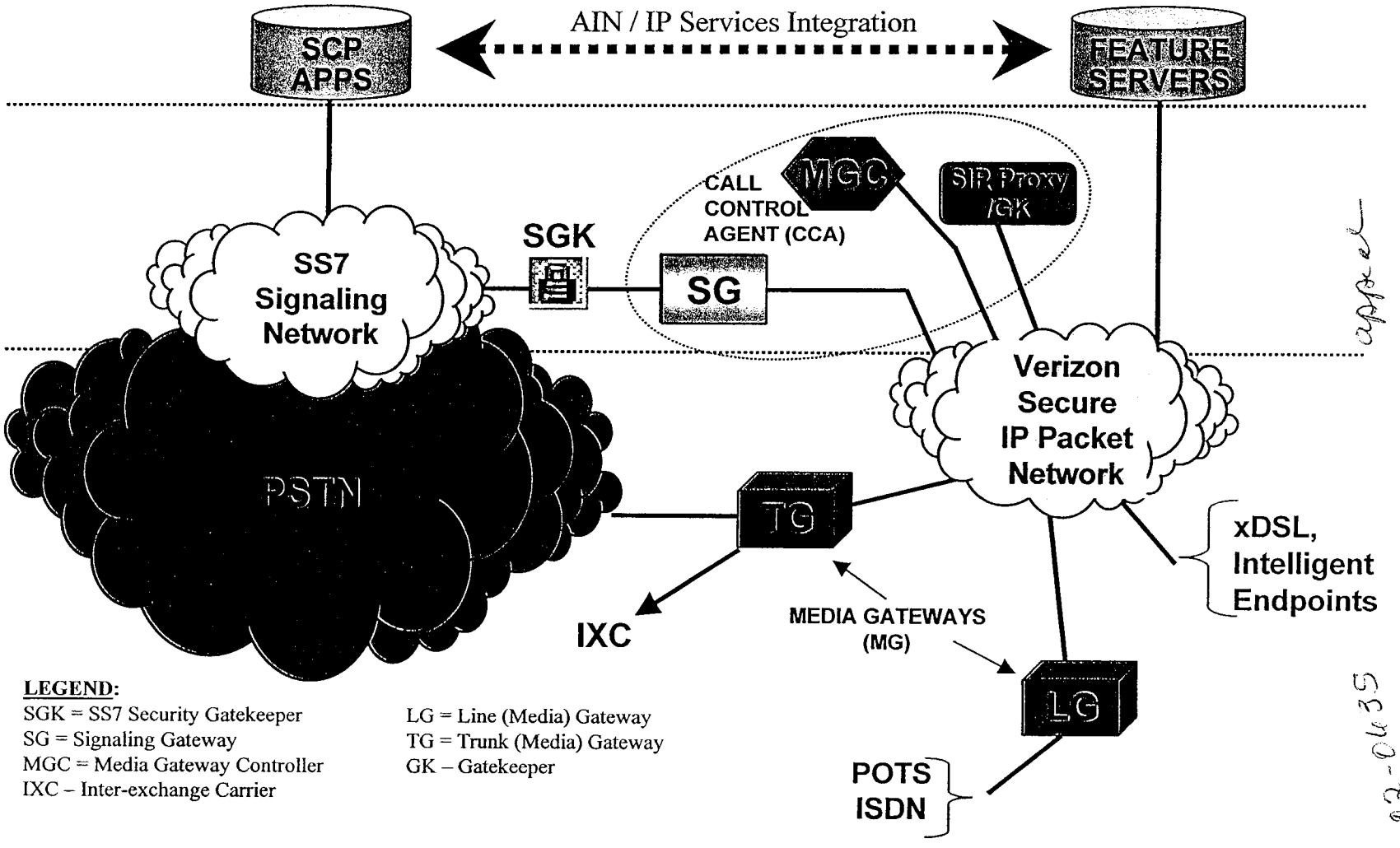
CONFIDENTIAL

990649B-TP

Functional Perspective of Proposed Target Packet Telephony Infrastructure

verizon

VERIZON PROPRIETARY AND CONFIDENTIAL



LEGEND:

SGK = SS7 Security Gatekeeper
SG = Signaling Gateway
MGC = Media Gateway Controller
IXC – Inter-exchange Carrier
LG = Line (Media) Gateway
TG = Trunk (Media) Gateway
GK – Gatekeeper

NOTICE: This material is part of ongoing efforts of Verizon and Verizon management to engage in thoughtful considerations of the fundamental changes and challenges facing the telecommunications industry. To meet its fiduciary responsibilities, management must explore all alternatives, even those that may appear highly speculative and hypothetical. Statements and representations contained herein are preliminary and/or tentative and should not be relied on unless approved by the appropriate Verizon governing body.

This confidentiality request was filed by or for a "telco" for DN 04650-02. No ruling is required unless the material is subject to a request per 119.07, FS, or is admitted in the record per Rule 25-22.006(8)(b), FAC.
(X-ref. DN 00582-02)
approved

DOCUMENT NUMBER-DATE
04650 APR 29 02
FPSC-COMMISSION CLERK
PSC-02-0435

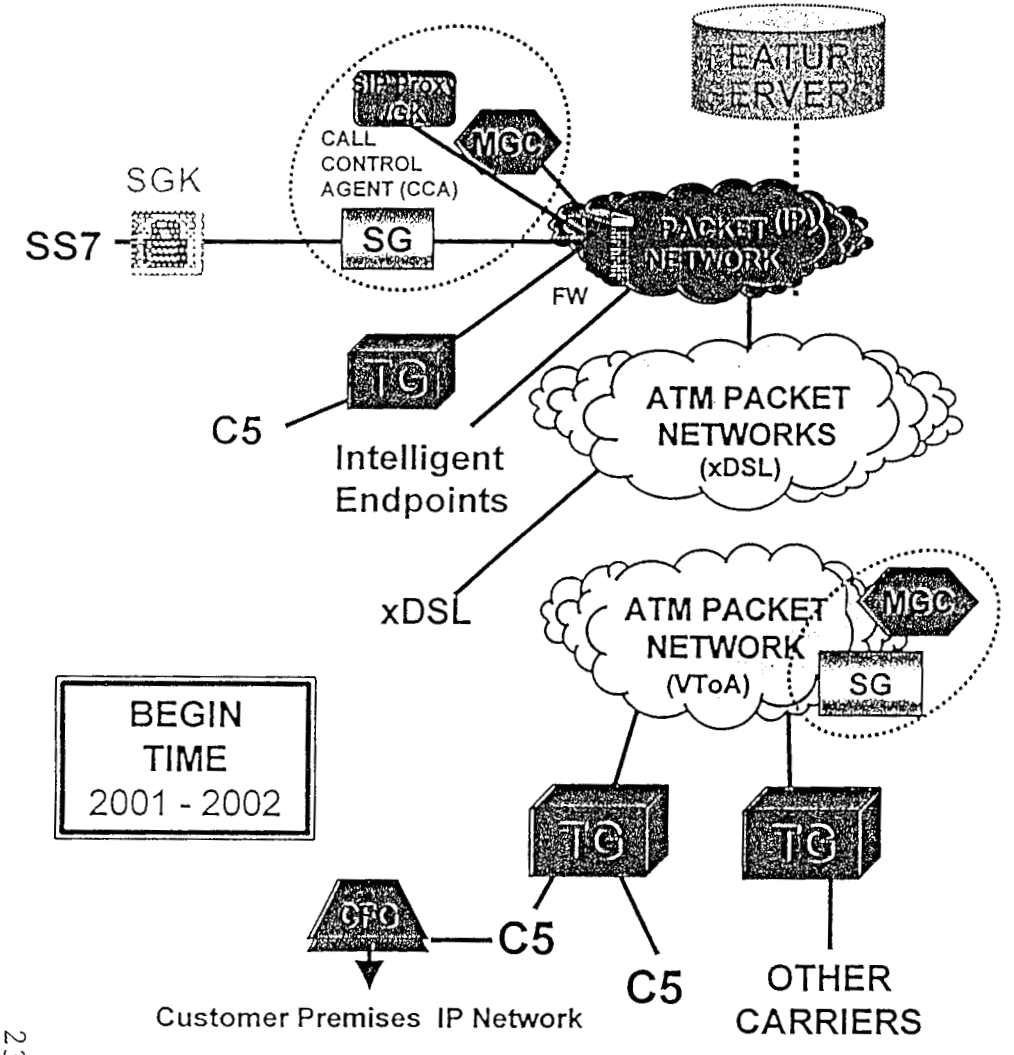
2372

DECLASSIFIED

Packet Telephony Evolution - Phase One

verizon

VERIZON PROPRIETARY AND CONFIDENTIAL



- ATM core network deployed for VToA
- Trunk (Media) Gateways used to tie End Office TDM switches to the ATM Packet Network (i.e., VToA)
- VToA Call Control Agent functionality added to Tandem switch platform, or via new, distributed Call Agent platform(s)
- ATM trunk access gateways deployed to interface IXC and CLEC tandems to the VToA network
- VoIP SoftSwitches deployed in an overlay fashion to meet selected market needs (e.g., Derived virtual lines for DSL, VoBB)
- Continue to deploy VoIP Terminating Access on a wholesale basis
- Introduce Class 5 based Centrex IP services on a selected basis
- Develop strategy for AIN / IP integration and examine potential implementation alternatives
- Begin investigation of Next-Gen STP platforms
- Complete specification and begin sourcing / development of SS7 Security Gatekeeper
- Security is applied in the network (e.g., firewalls, intrusion detection capabilities, etc.)

NOTICE: This material is part of ongoing efforts of Verizon and Verizon management to engage in thoughtful considerations of the fundamental changes and challenges facing the telecommunications industry. To meet its fiduciary responsibilities, management must explore all alternatives, even those that may appear highly speculative and hypothetical. Statements and representations contained herein are preliminary and/or tentative and should not be relied on unless approved by the appropriate Verizon governing body.

2373

Packet Telephony Phase One Technologies (e.g., VToA) are Becoming Real for Florida

VERIZON PROPRIETARY AND CONFIDENTIAL

A Nortel Succession™ packet tandem switch, as described per Evolution Phase One, is being deployed in Tampa, Florida, this year. The Voice Trunking over ATM (VToA) application will provide increased capacity in Verizon Class 4 switching offices, and will help address tandem exhaust issues.

- This is thought to be one of the first applications of this technology in the Public Switched Telephone Network (PSTN).
- Currently, the system is in final testing prior to turn-up.
- Tampa is scheduled to cutover VToA for selected voice traffic in March 2002.
- The initial deployment will be expanded over the next two years.

DECLASSIFIED

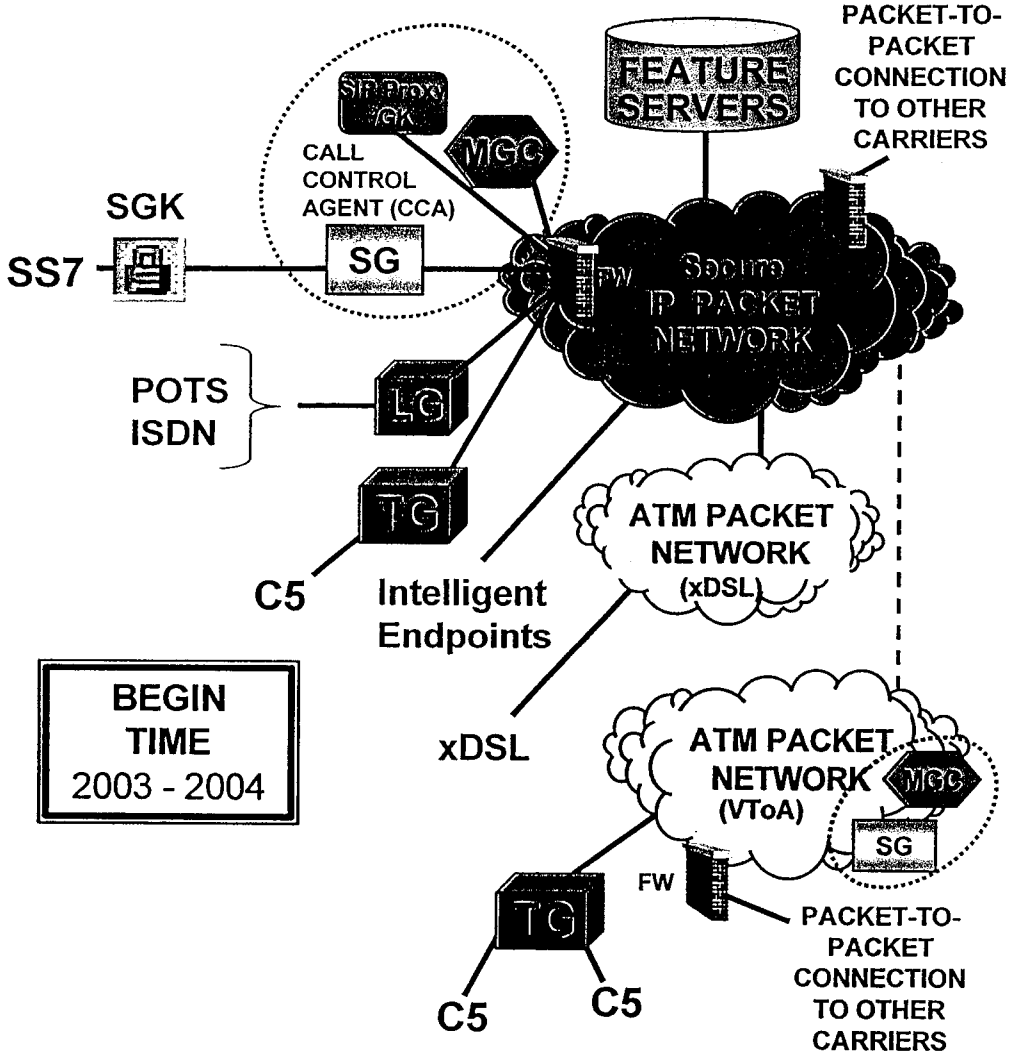
NOTICE: This material is part of ongoing efforts of Verizon and Verizon management to engage in thoughtful considerations of the fundamental changes and challenges facing the telecommunications industry. To meet its fiduciary responsibilities, management must explore all alternatives, even those that may appear highly speculative and hypothetical. Statements and representations contained herein are preliminary and/or tentative and should not be relied on unless approved by the appropriate Verizon governing body.

2374

Packet Telephony Evolution - Phase Two

verizon

VERIZON PROPRIETARY AND CONFIDENTIAL



- Continued growth of Media Gateways for Trunk-level (VToA) connections
- Explore secure packet-to-packet connections to other carriers
- Introduction of VoIP Class 4/5 alternatives; Build out of IP backbone
- Introduction of the Line Gateway to connect existing POTS and ISDN circuits to VoIP SoftSwitches
- Develop & deploy new AIN and IP services consistent with the strategy for AIN / IP integration
- Begin deploying SS7 Security Gatekeepers, starting with PSTN SS7 interconnections
- Begin scheduled removal (by consolidation) / replacement of DMS STPs, removal / upgrading / replacement of existing STPs.

DECLASSIFIED

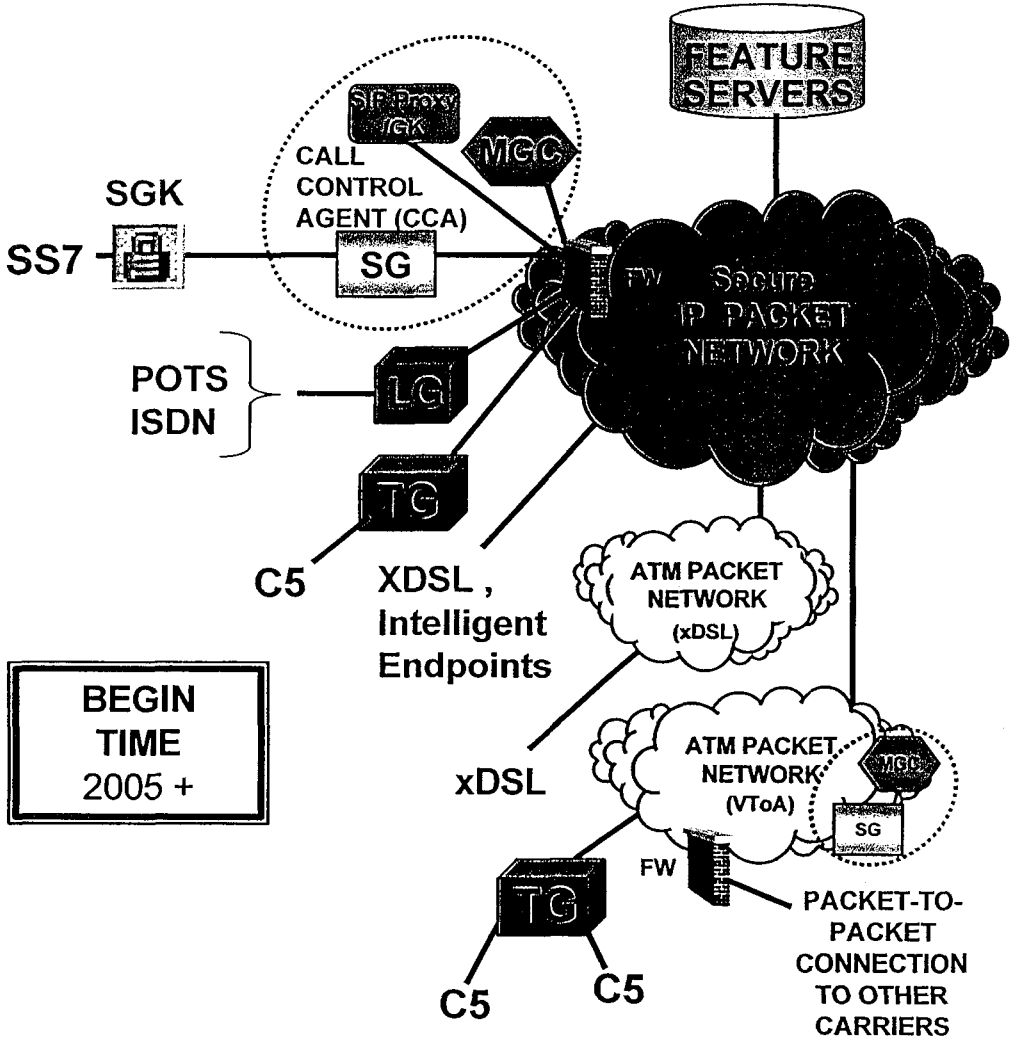
NOTICE: This material is part of ongoing efforts of Verizon and Verizon management to engage in thoughtful considerations of the fundamental changes and challenges facing the telecommunications industry. To meet its fiduciary responsibilities, management must explore all alternatives, even those that may appear highly speculative and hypothetical. Statements and representations contained herein are preliminary and/or tentative and should not be relied on unless approved by the appropriate Verizon governing body.

2375

Packet Telephony Evolution - Phase Three

verizon

VERIZON PROPRIETARY AND CONFIDENTIAL



- Class 4 / 5 SoftSwitches selectively deployed to replace TDM switches where driven by economics
- Existing "islands" of VoIP Class 4 / 5, Class 4 VToA network elements, and fast packet core networks are more efficiently internetworked. Voice/Data network convergence is achieved.
- Business decision of whether to cap Class5 TDM, Class 4 TDM, and VToA platforms
- Business decision of whether to cap the ISCPs and deploy only IP application servers
- Complete deployment of SS7 Security Solution
- Complete STP consolidation / upgrade / replacement program

DECLASSIFIED

NOTICE: This material is part of ongoing efforts of Verizon and Verizon management to engage in thoughtful considerations of the fundamental changes and challenges facing the telecommunications industry. To meet its fiduciary responsibilities, management must explore all alternatives, even those that may appear highly speculative and hypothetical. Statements and representations contained herein are preliminary and/or tentative and should not be relied on unless approved by the appropriate Verizon governing body.

2376