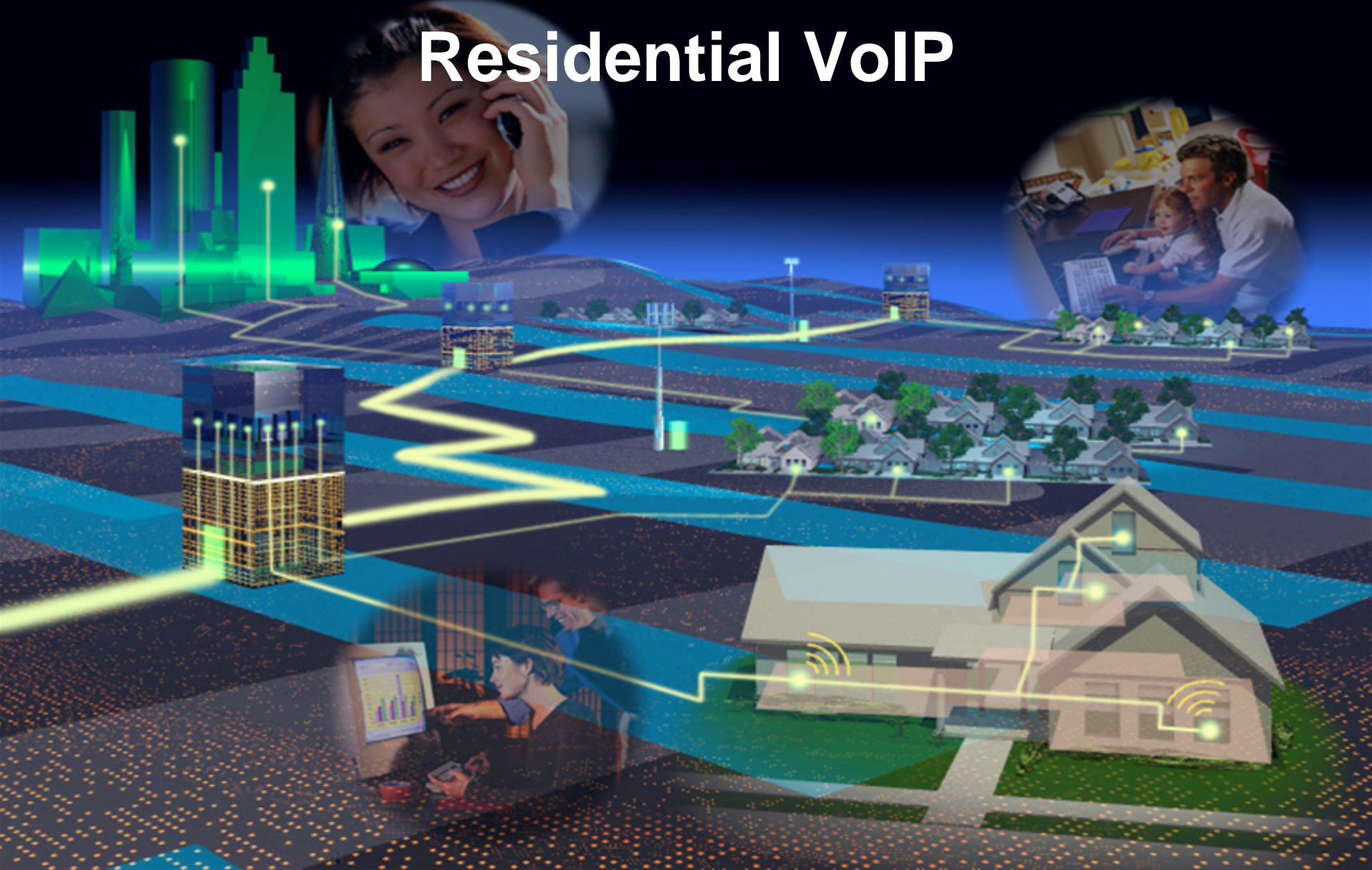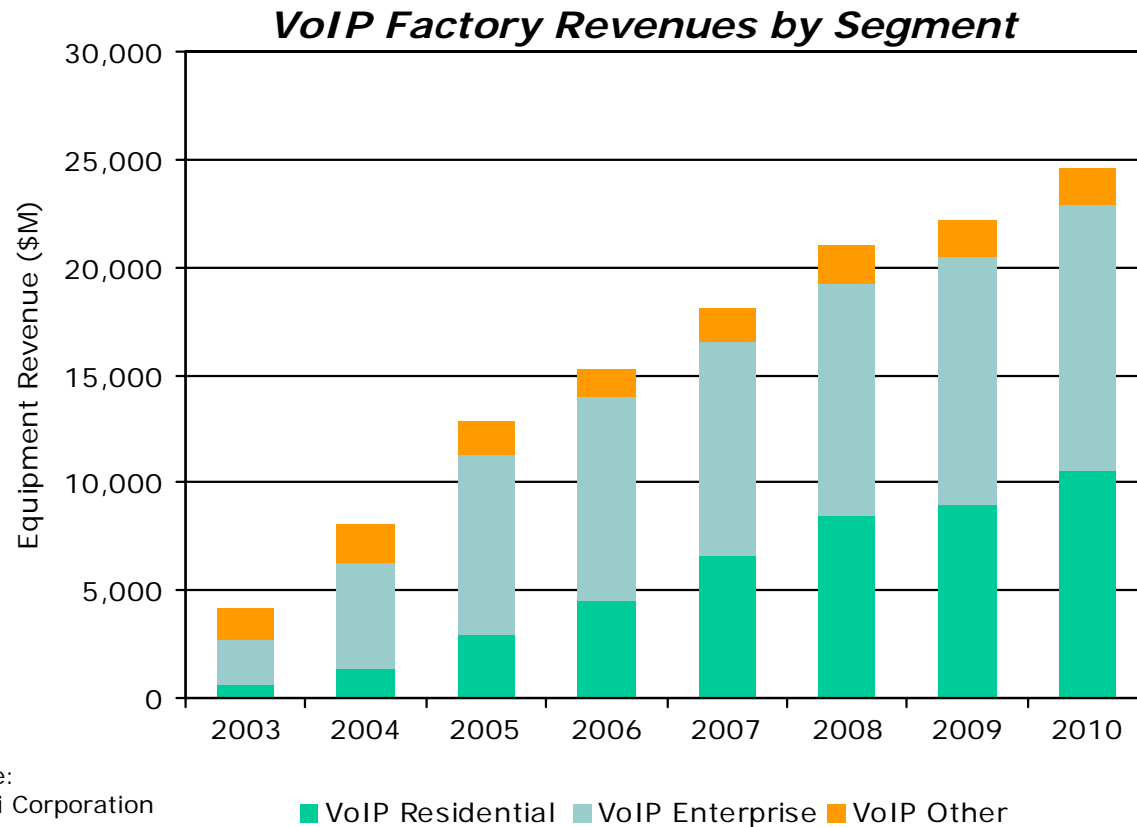# Texas Instruments: Committed to Residential VoIP

VoIP in the Residence and Enterprise – a $15 B Market

VoIP Factory Revenues by Segment

Source:
iSuppli Corporation

Legend: ■ VoIP Residential ■ VoIP Enterprise ■ VoIP Other

September 5, 2005 *iSuppli Corporation* - By 2010 Enterprise VoIP will represent 50% of the $20 Billion VoIP equipment market. The residential space, the second largest segment in VoIP, is in its early adopter stage and offers unlimited potential for the knowledgeable supplier.

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Residential VoIP Gateway Trends

Not just an analog terminal adapter anymore….

- ▶ **Service providers want consumers to have options in consumer VoIP products**

- ▶ **Demand feature set on par with cellular phones**

- ▶ **Quality of service and performance are key to increasing subscriber take rates and minimizing churn**

Recent TI VoIP News

9/20/05 → **Texas Instruments Reaches Ten Year Milestone in VoIP Software and Silicon Shipments, Retaining Leadership Position in Burgeoning Market**

10/2/05 → **Texas Instruments Announces New VoIP Gateway Platform for T1/E1 Enterprise Applications**

1/16/06 → **Texas Instruments' PIQUA™ to Dramatically Transform Quality of Service for Internet Based Communications and Entertainment**

1/30/06 → **Texas Instruments Newest Carrier Infrastructure Platform Speeds Operators' Transition to a Converged, All-IP Network**

TI's Broad Range of VoIP Solutions

Infrastructure
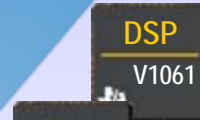
High Density Gateway Base Station

DSP V3010
DSP C64xx
DSP V3000

Discrete

Integrated DSP & RISC

Customer Premises

Enterprise Gateway

RISC V1020
DSP V2520
DSP V2510

Residential SOHO Gateway

RISC V1020
DSP V2409
DSP V2402

DSP V1061
DSP V1060

VoDSL

DSP ARV7V
DSP V921

VoCable

DSP PUMA
DSP V901

WLAN IP Phone

Enterprise IP Phone

DSP V2402

DSP V1001
DSP V1055
DSP V1050
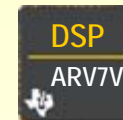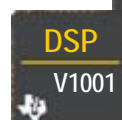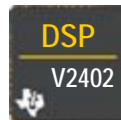
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TEXAS INSTRUMENTS

3/7/06: Introducing the TNETV1061

Complete silicon and software solution for residential VoIP products

- ▶ **Analog Terminal Adapters**
- ▶ **Wired Gateway/Routers**
- ▶ **802.11b/g Access Point/Routers**
- ▶ **Broadband Cordless Phones**
- ▶ **Home VoIP/cellular basestation**

Expanded software features

- ▶ **Industry-leading, PIQUA™-enabled VoIP features**
- ▶ **SIP protocol stack + supplemental services**
- ▶ **Network Support package and routing**
- ▶ **Remote configuration & management**
- ▶ **Integrated 802.11g++ Access Point**

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Key Features/Benefits

TNETV1061
Texas Instruments

Consumer Electronics Building Blocks

Finished Products

Broadband Cordless Phone

Terminal adapter

Residential Gateway

VoIP Phone

Scalability and remote management support

| XML-based configuration and provisioning | Dual image support | Remote firmware upgrade |

Enhanced software features

| Support for advanced wireless codecs | Advanced security features | Complete suite of telephony call features | PIQUA™-enabled solution |

Silicon optimized for residential VoIP applications

| Dual processor architecture | Integration of features | 20% improvement in performance |

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TNETV1061 Block Diagram

Designed to optimize performance for Residential CPE VoIP applications

Software Features

- Up to 4 channels LBR voice, fax
- G.729AB, G.723.1A, G.726, G.711
- Supports wireless codecs (GSM, EVRC) for fixed mobile convergence support
- PIQUA™-enabled VoIP features
  - Telchemy v2.2 and RTCP-XR
  - Line echo canceller
  - Adaptive jitter buffer
  - Tone detectors/generators
  - 3-way conferencing
- Security
  - SIP TLS
  - Secure RTP
- Remote configuration and management
  - Remote firmware upgrade support
  - Single or dual image support
  - XML-based configuration
  - Generic network-based provisioning scheme
- Network support package
- High performance routing
- Enhanced SIP supplemental services
- 4-port LAN Switch
- 802.11g++ for improved rate and reach

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TNETV1061 Development Platform

TNETV1061SDB_WR

- **TNETV1061 VoIP processor**

- **Supports up to 4 FXS ports, optional FXO port**

- **Telephony interface Daughtercards**

  - **Legerity dual FXS**

  - **Silicon Labs dual FXS**

  - **Silicon Labs FXO**

- **802.11g++ Access Point module**

- **4-port Ethernet switch**

- **Integrated Ethernet phys support AutoMDIX**

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TI Residential Gateway Customers
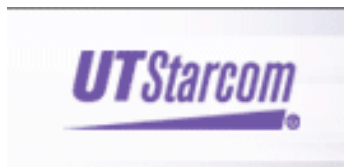
TNETV1061 Summary

TI offers the *most complete, integrated and robust* residential voice gateway solution

✓	Leverages superior TI DSP technology
✓	Field proven Telogy Software products
✓	Includes complete suite of VoIP software features
✓	Fully supported software development platform
✓	Pre-integrated Linux OS and SIP protocol stack
✓	Dedicated support and training
✓	Protection of TI's "no cap" essential patent indemnification

TI Contacts

Matt Harvill

Director / Residential CPE

Texas Instruments

mharvill@ti.com

Gary Silcott

WW Marketing Communications

Texas Instruments

214-480-2048

gsilcott@ti.com