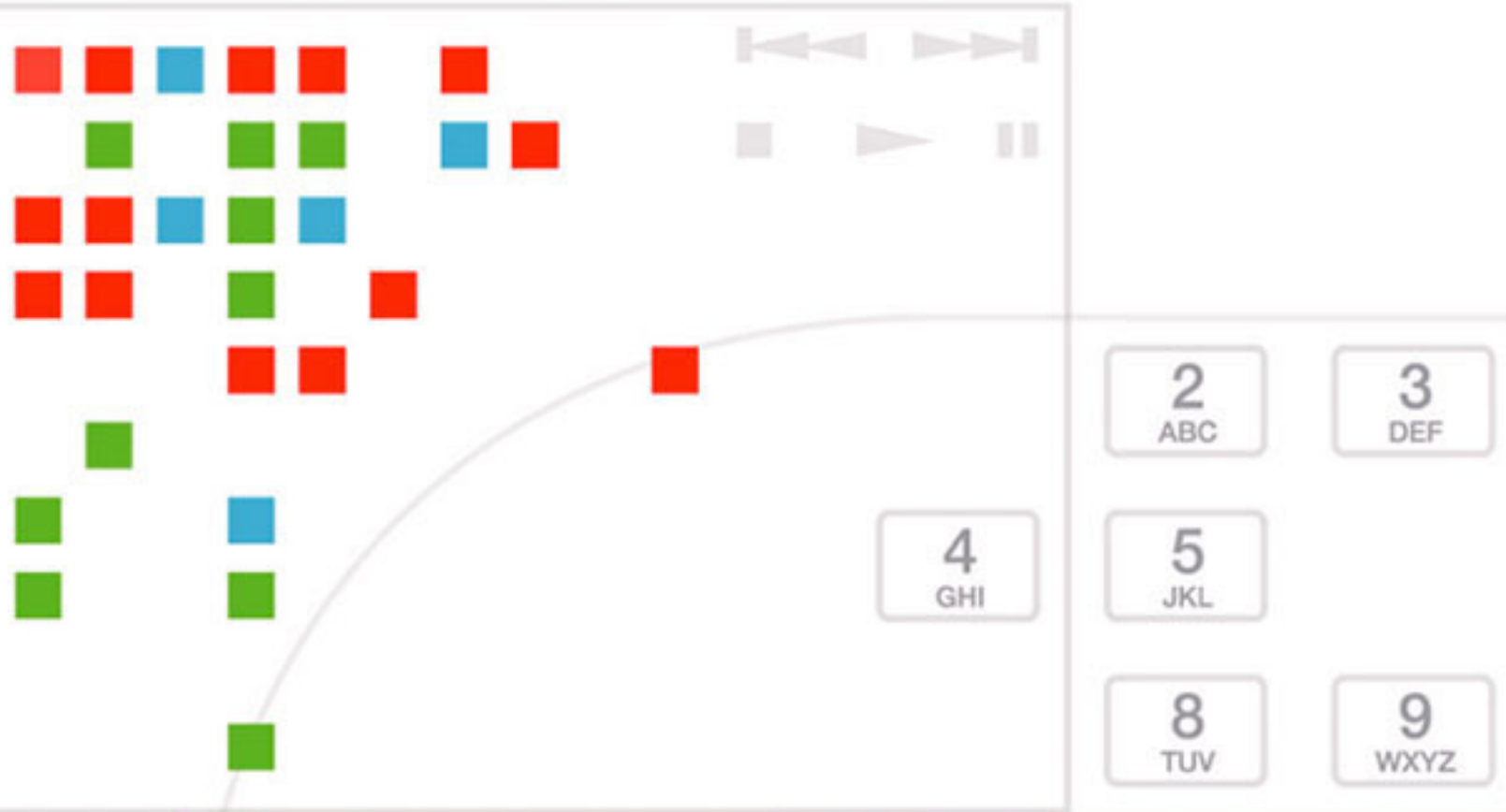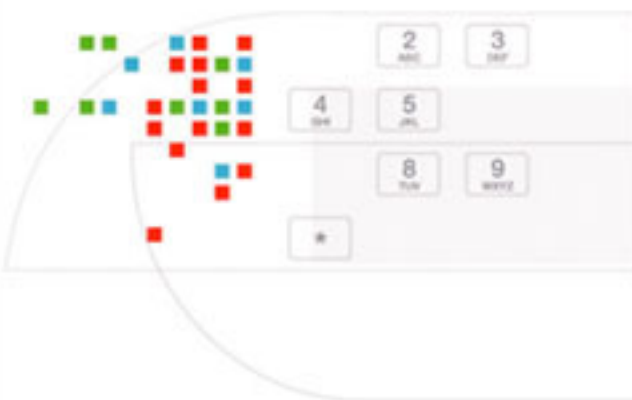# IP Services Today

The consumer market for voice, video and entertainment over IP is exploding:

- 2006 predicted as the year of subscriber growth

- Service providers/operators companies look to all-IP networks for revenue generation (new services)

- Non-traditional companies are entering VoIP, IP video and IPTV

- Traditional services providers are stepping outside of their traditional voice, data or video markets to offer all three

Achieving Scale: What Will It Take?

To move beyond the early adopter phase, *service quality* must be a part of the buying decision:

- Price only part of the equation; must meet existing in-service experience while offerings customers more features

- Service providers must move from support calls and truck rolls to remote diagnostics and proactive, intelligent end-to-end networking management

IP quality management is a *comprehensive* process involving the discovery, configuration, monitoring and repair of services, networks and devices in a distributed IP environment.
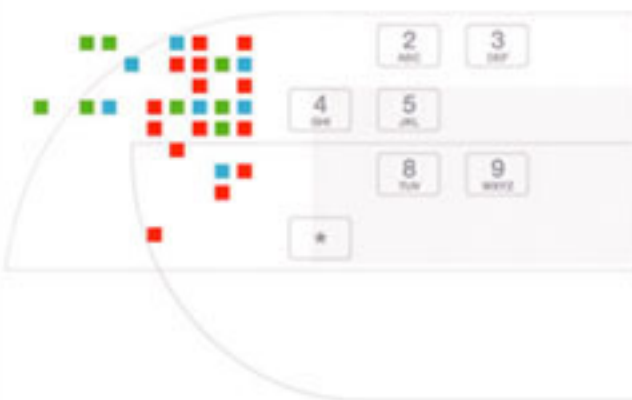
What are the Implications of Poor Quality Performance?

- Customer satisfaction
    - Churn/cancellations
    - Unnecessary returns
    - Truck rolls to diagnose root cause

- Slowed market growth and penetration

- Provider's quality reputation suffers

- Relationships among suppliers suffer
  (Is it the network or the phone creating the problem?)

- Potential other service revenue lost
  because of one weak offering

**Reliable information on IP-based
service performance is *imperative*.**
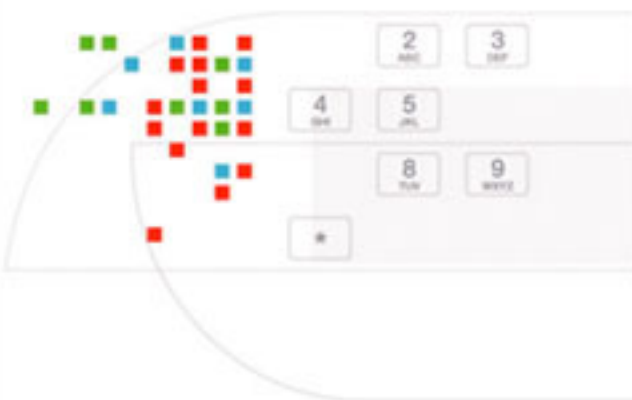
PIQUA™

Now, There's a Better Way: PIQUA, from TI

PIQUA is a system of complete quality management elements embedded in TI's IP solutions

- **Intelligent VoIP, Video, Audio, Home Networking, IP Security …**

Leverages TI's unique IP portfolio

- Over **13 years** of delivering solutions for IP services

- **500M+ ports** shipped across IP phones, residential modems and gateways, enterprise gateways, set top boxes, consumer electronics carrier-class equipment and home networking devices

Works in conjunction with leading Network Management Systems

Allows manufacturers to customize for specific service provider networks

Made possible by TI's DSP and embedded software technology

What Does PIQUA Offer Service Providers?

Lower services cost by:

- Deploying new diagnostic capabilities

- Remotely configuring/installing consumer devices

- Monitoring/metering services through open industry-standard management tools

- Delivering responsive, effective customer support and repair
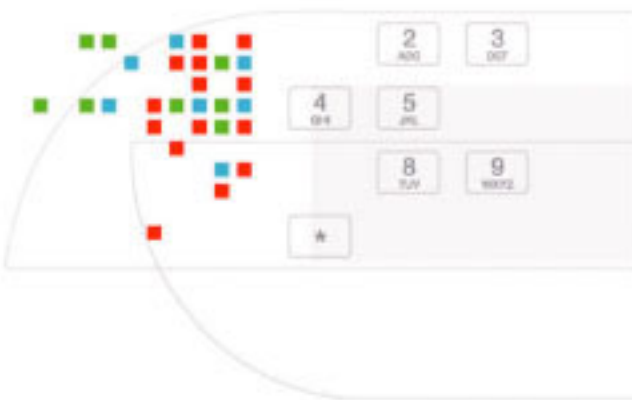
What Does PIQUA Offer Service Providers?

Dependable, manageable networks, devices and IP services

Enabled by PIQUA-based products: tested and proven manageable

With industry-leading management system partners

What Does PIQUA Offer Equipment Manufacturers?

Allows manufacturers to address the requirements of service providers by:

- Lowering warranty costs with fewer product returns for quality of service complaints

- Having an "intelligent tool" to proactively manage QoS

- Addressing operator requirements of IP manageability and quality as number of subscribers for IP-based services scales

- Making OEMs "RFP-ready" for their service provider customers
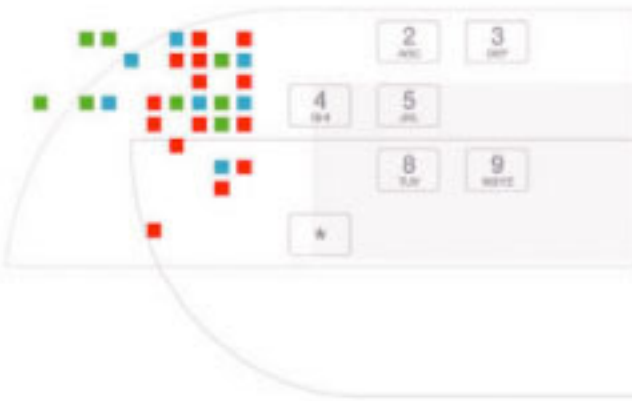
PIQUA™

PIQUA

Delivering PIQUA to the Market

Left diagram:

Phone — Cable Gateway

Phone — VoIP Gateway

Fax — VoIP Gateway

IP Set Top — DSL Gateway

CMTS — DSLAM — **Packet Network**

PSTN — Voice Gateway/ Video Headend

Service Provider

Right diagram:
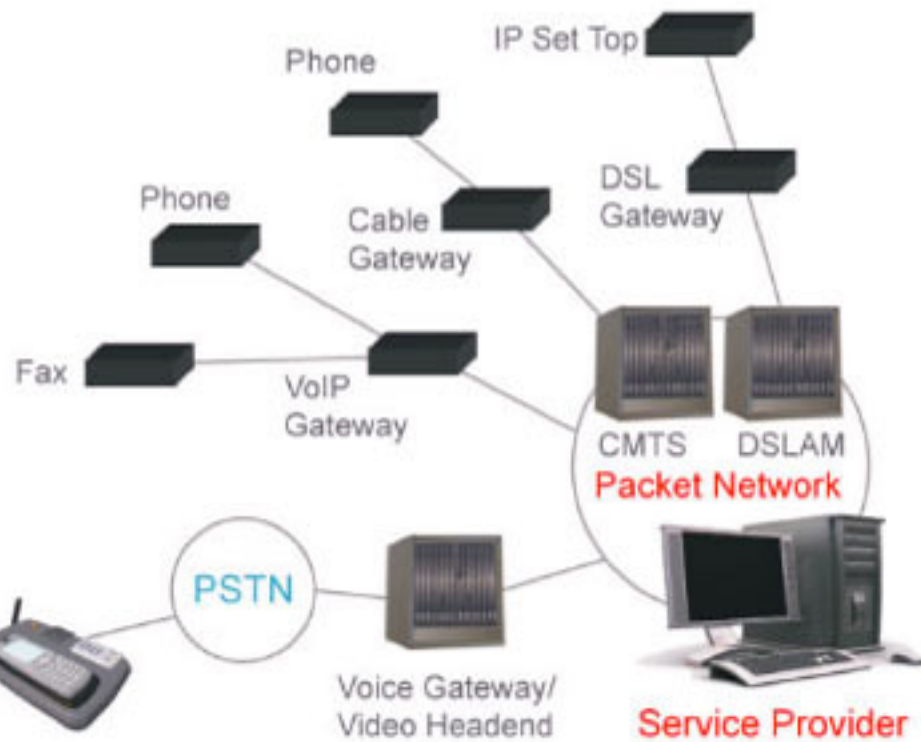
PIQUA elements everywhere talking to NMS systems in new IP system architecture

Phone — Cable Gateway **PIQUA**

Phone — **PIQUA**

Fax — VoIP Gateway **PIQUA**

TV — IP Set Top **PIQUA**

DSL Gateway **PIQUA**

CMTS — DSLAM — **Packet Network**

PSTN — **PIQUA** — Voice Gateway/ Video Headend

Service Provider

Network Managment Systems processing PIQUA elements
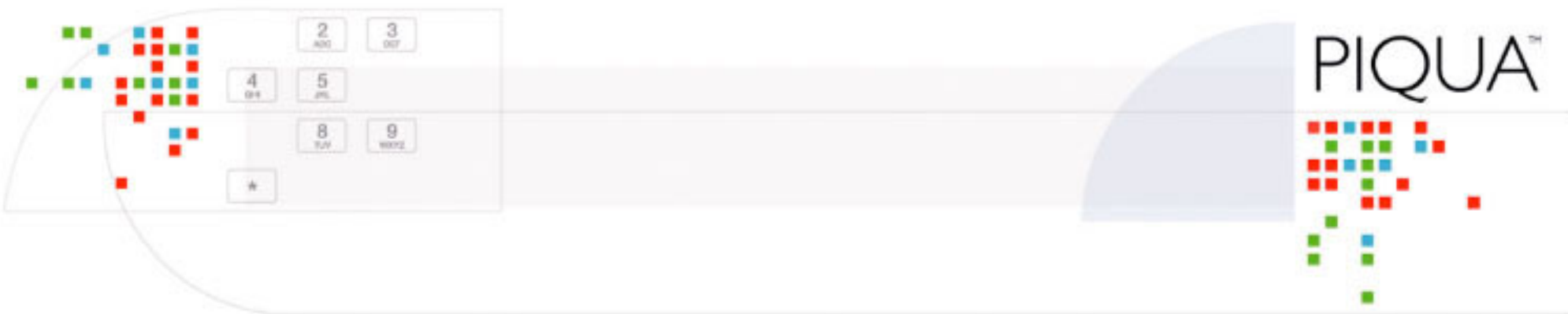
Benefits of PIQUA

TI delivers IP services quality management through:

Proactive monitoring	Reacting to performance degradation before customer calls	Threshold-based alerts	Real-time diagnostics
Empowering subscriber support center personnel with valuable measures, analysis tools and recommendations	Historical reporting	Identifying trends, avert problems, post-call review	Automated corrective action

PIQUA™

PIQUA™

PIQUA-enabled products enhance the user experience, resulting in lower support cost and churn.

Today it's voice and data—tomorrow it's real-time video, home security, IPTV and home automation.

PIQUA enables an *excellent consumer experience,* and *optimizes customer support and network operations costs.*

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Mailing Address: Texas Instruments
Post Office Box 655303 Dallas, Texas 75265

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