Gartner

Research

Publication Date: 23 September 2005 **ID Number: G00130449**

Large and Small Customers Can Benefit From IP Centrex

Steve Koppman

Large and small customers can benefit from emerging IP Centrex voice services, especially legacy Centrex customers and branch locations.

WHAT YOU NEED TO KNOW

IP Centrex services should be considered for enterprises as well as small businesses.

ANALYSIS

Led by AT&T, more major providers are launching IP Centrex services in 2005 and will continue in early 2006, adding momentum to this emerging market. Flat-rate IP voice packages with traditional Centrex features and new functionalities made practical by IP are bundled — usually with Internet access and often long-distance — by a growing number of providers. Though adoption has been modest to date, IP Centrex will grow in triple digits and serve 6 million customer phones in North America by the end of 2009. Primary growth drivers will include:

- Broadening customer acceptance of IP voice
- Typically modest, predictable service costs, avoiding upfront capital expense and ongoing operational requirements of internal staff
- Incumbents will eventually provide incentives for many legacy Centrex customers to shift to an IP-based service

Why IP Centrex?

The IP Centrex value proposition is:

- Migration to IP voice — the service of the future
- Minimal upfront investment and ongoing operational responsibility
- Converged/integrated access (facilitating combination of voice and data networks)
- Simple, predictable and modest price
- New productivity-improving features

AT&T's market entry with an upmarket focus and enterprise credibility will help move the market more toward a focus on the requirements of larger organizations. The ability of IP Centrex to support customized applications (for example, for collaboration, presence and call centers) will expand during the next five years, increasing its longer-term attractiveness to larger customers that rely on their own equipment to support such applications. Customers have initially been attracted to the service more to contain costs and combine networks than for new features.

IP Centrex: What's in the Name?

The various terms used in the marketplace for various IP voice services are often overlapping and confusing. Gartner Dataquest defines IP Centrex as IP-based voice service on a shared network platform with the basic features of legacy Centrex, along with significant added functionality derived from or made economically practical by IP to offer an approximation of generic IP PBX-like functionality (though with fewer features). This definition includes most services known as "hosted IP voice/communications" but not "hosted IP PBX." While the market uses the IP Centrex label, providers often don't use the label because of negative perceptions attached to the legacy Centrex name.

In contrast with primarily softswitch-based IP Centrex, Centrex IP is a transitional service offered by incumbents to give legacy Centrex customers a direct IP voice migration path. Distinct from

softswitch-based IP Centrex, these offer IP access to and integration with the legacy service, using an IP gateway in front of the legacy platform, and adding an adjunct softswitch application platform. When these services provide substantial IP-based functionality, they qualify as part of the IP Centrex universe discussed here. While they are becoming less important as predominant softswitch-based services gain credibility, they may be suitable for some legacy Centrex customers until softswitch-based IP Centrex gains interoperability with the legacy service.

Hosted IP PBX is another label often confounded with IP Centrex. Gartner uses this term rather to refer to the use of branded equipment dedicated to specific customers but managed by providers on their premises. The provision by dedicated equipment rather than shared network platform combines customer premises equipment (CPE) customizability for unique applications with hosted service's capital expenditure avoidance for larger customers.

Pricing and Providers

Distinct from "traditional" Centrex, pricing often involves one monthly fee per end-user station for all local, domestic long-distance and features, plus a per-location access line charge, which also typically covers Internet access. (The provider typically takes responsibility for access, at least at primary locations.) Per-seat charges typically average in the $25 to $50 range. Some providers and options, however, charge separately for long-distance use, and some (such as MCI) use a slightly different pricing model, resembling traditional PBX trunking more than Centrex, and charging by call path rather than end-user "seat." IP phones are typically not required, although they offer additional functionality, and some of their cost may be bundled in with the service. Some providers may also handle in-building wiring, typically for an additional fee.

The following are often opportune occasions to experiment with IP Centrex pilots:

- Pursuant to a move
- When new locations open up
- When an old Centrex contract expires or an old CPE needs replacement

The IP Centrex market has been highly fragmented between a wide range of providers including a large number of small ones often limited to small businesses in individual metropolitan areas. Significant providers include Covad, MCI, SBC and a range of smaller ones including M5, ICG and Pingtone. Market entries by AT&T, Sprint and Verizon during 2005 and early 2006 will add greater heft and credibility to the service for enterprise customers, assuming merger integration problems don't excessively undermine service quality.

Features and Applications

Typically, IP Centrex (as with IP CPE) includes at least such IP-facilitated voice features as:

- Unified messaging/visual voice mail
- Advanced find-me/follow-me (simultaneous/sequential ringing at multiple locations)
- Selective call processing (for example, the ability to route some calls automatically to voice mail while others go through at all times and others are routed to an assistant)
- "Click to call"
- Instant Web-based conferencing
- Detailed call logs

Other underlying functions include:

- IP-based converged access
- Ability to perform its own moves, adds and changes to telephone service
- Web-based call management allowing service and feature reconfiguration

The War Between Centrex and PBX: IP Rematch?

Regulated legacy Centrex pricing was relatively inflexible and designed for large customers with many geographically concentrated extensions, such as local governments, utilities, colleges and hospitals. With a legacy PBX, most other potential customers could get more functionality for lower long-term cost, while telephone companies typically added features to Centrex at a glacial pace. Besides IP voice's previously mentioned advantages, IP Centrex offers potential improvements compared with the legacy service including:

- Service availability from multiple providers with more flexible pricing, often including flat-rate long-distance
- Improved parity in functionality with IP PBXs compared with the corresponding matchup in the time division multiplexing (TDM) world
- Potentially faster development cycle for new network features

At the same time, IP Centrex continues legacy Centrex's advantages vs. CPE in freedom from capital investment and ongoing maintenance, coupled with — specific to the IP case — avoidance of the need for staff to become expert on the new technology, meaning a reduced chance of disruption.

The big IP Centrex disadvantages in relation to CPE — IP or legacy — continue to be:

- Customers' perceived reduced ability to use equipment to manage and control their own communications environment
- Loss of the ability to develop and use uniquely customized applications
- A sense of security risk in shared environment

Carriers will continue, however, to develop IP Centrex beyond current capabilities. Within three years, the service is likely to support many relatively standardized business applications of the kind typically brought out by third-party developers, such as for presence, collaboration and call centers. Unique applications customized to individual customers are likely to remain longer on CPE.

However, as hosted platforms increase technical capabilities, there is no fundamental long-term reason IP Centrex can't eventually do much of what IP PBXs do in making specialized applications work, potentially within the next five years. Though most security issues are being addressed, a technical key for shared platforms to match dedicated ones will be the ability to ensure that one customer's problems cannot bring down another customer's service.

Conclusions: Looking to the Future

The basic IP Centrex marketing proposition is that, when the customer moves inevitably to IP voice, IP Centrex can offer most of the advantages of IP PBX without upfront capital costs and fewer ongoing technology headaches. On the other hand, customers need to realize that

managing a provider is a potential problem, and ongoing costs for IP Centrex will not necessarily be lower than for CPE.

Many enterprises tend to be overconfident about their understanding of the overall long-run total cost of ownership (TCO) of buying and maintaining their own equipment — which is often underestimated and can be hard to quantify — using overoptimistic assumptions regarding staff, maintenance and upgrade requirements. By the time these costs are better understood, the long-term default commitment to CPE has typically already been made. Businesses that understand these costs, as well as potential benefits of network service, will be better-prepared to make these decisions, in whatever direction or combination of directions they choose to go.

Clearly, IP Centrex is not right for all enterprise customers. Anyone requiring unique applications developed for them cannot satisfy those requirements with IP Centrex, at least in the short and medium term, though they may be able to use the service for some branch locations. Businesses that already have strong IP telephony expertise available internally may want to take advantage of this strength rather than outsourcing to a carrier.

Gartner has developed a decision framework for assessing individual customer choices on IP telephony adoption. The decision framework focuses on the following factors:

- Customer's current situation in terms of PBX/Centrex deployment and the degree to which that meets business requirements
- Requirements for unique customer-specific next-generation IP telephony and unified communication applications
- Availability of internal IP telephony expertise
- Customer preference for operational vs. capital expenditure

Recommendations

- Examine and use Gartner's decision framework for assistance in formulating an IP telephony adoption approach.
- Develop quantifiable methods of realistically comparing the long-term TCO costs of IP PBX and IP Centrex for your organization.
- Specifically for legacy Centrex customers — review what IP Centrex options are available from your provider and credible competitors, to compare cost and functionality to decide whether and when a transition to IP service may be beneficial.

When adopting IP Centrex, negotiate a deal with providers that:

- Minimizes or avoids upfront cost — for example, in the cost of new telephones, which the carrier may share or assume — or obviate by making practical continued use of legacy phones
- Combines wireless and wireline
- Incorporates unlimited domestic long-distance, if advantageous

Product Strategy

While many initial adopters have been smaller-business customers, enterprise customers can also benefit from this option, particularly legacy Centrex customers and branch locations. Each enterprise must study the comparisons in light of its own specific needs.

Strengths

- Less upfront capital cost vs. new PBX
- Less need for telecom staff vs. any (new or old) PBX
- Converged access, facilitating network integration
- Adoption of potentially long-run lower-cost technology
- Responsibility for upgrading technology devolved to provider
- Intracompany calling without usage charges to locations on dedicated or broadband access
- Flat rate (often) for long-distance calling
- New features

Challenges

- Reduced ability to develop unique customized applications vs. new (or old) PBX
- Requirements for new training and knowledge (vs. old PBX or Centrex)
- Risks in IP voice quality and availability
- Potential requirements for network upgrade or new phones
- Risk in outsourcing responsibility to carrier and need to "manage" carrier
- Carrier installs new features on its timetable

Consider This Product When

- The legacy Centrex contract or useful PBX life is up, when moving or when opening new locations

Consider Alternatives When

- You have a strong requirement for unique customized IP-based applications

Key Issues

How will hosted solutions replace or supplement customer-owned platforms and applications?

How will the Internet and IP-based services affect the public network service market?

REGIONAL HEADQUARTERS

Corporate Headquarters
56 Top Gallant Road
Stamford, CT 06902-7700
U.S.A.
+1 203 964 0096

European Headquarters
Tamesis
The Glanty
Egham
Surrey, TW20 9AW
UNITED KINGDOM
+44 1784 431611

Asia/Pacific Headquarters
Gartner Australasia Pty. Ltd.
Level 9, 141 Walker Street
North Sydney
New South Wales 2060
AUSTRALIA
+61 2 9459 4600

Japan Headquarters
Gartner Japan Ltd.
Aobadai Hills, 6F
7-7, Aobadai, 4-chome
Meguro-ku, Tokyo 153-0042
JAPAN
+81 3 3481 3670

Latin America Headquarters
Gartner do Brazil
Av. das Nações Unidas, 12551
9° andar—World Trade Center
04578-903—São Paulo SP
BRAZIL
+55 11 3443 1509

Gartner