Comparison of
Avaya IP Office 500 vs. Panasonic KX-TDE
For the Small Business Market

July 2008

This report summarizes the major advantages of KX-TDE over IP Office 500 for the small business customer. Differences are compared graphically in terms of price-value, and described in the text.
The summary compares average cost per station for the two systems.

Avaya IP Office 500 vs. Panasonic KX-TDE

Avaya's IP Office 500 and Panasonic's KX-TDE are converged IP PBX systems that target the small to mid-size business (SMB) market. IP Office 500 has two versions, a feature-rich Professional Edition that supports up to 272 users, and a very basic Standard Edition that supports up to 32 users with limited functionality. Offering modular growth options, the IP Office 500 system includes the server, media modules, trunk interface cards and a range of options to add applications via licenses and servers. The 45-day Free Application Try-It-Buy-It Program allows customers to trial applications before purchasing.

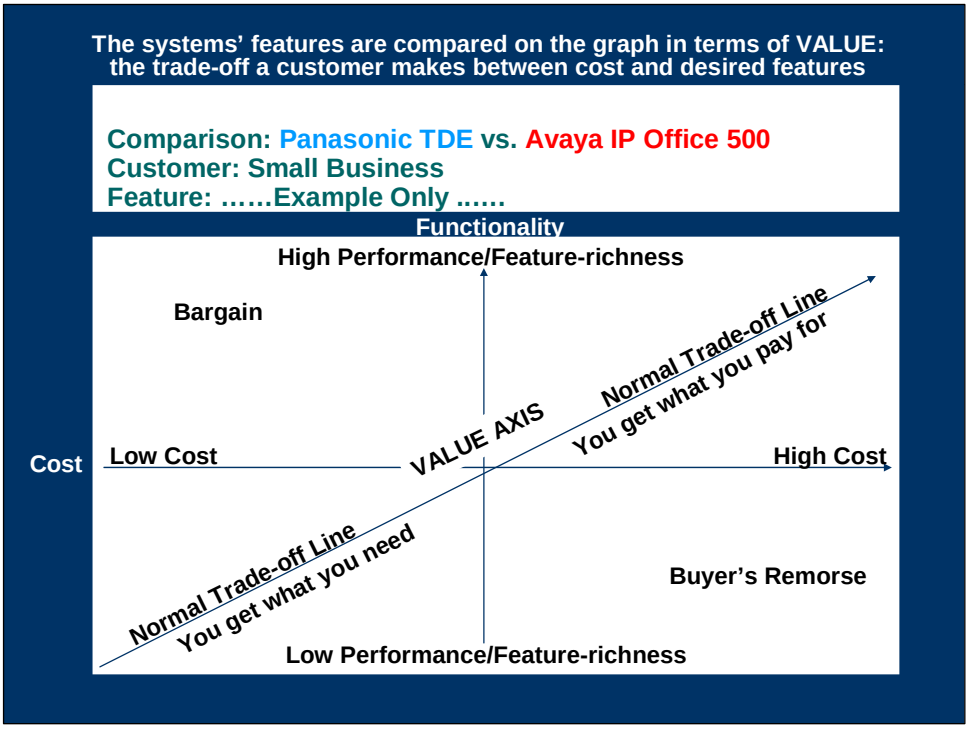
Panasonic KX-TDE is a cost-effective solution designed for small businesses wanting both traditional telephony and Voice over IP (VoIP) features, with the functionality that they most need. KX-TDE is a single unit that is available in two models (depending on customer size), both with a maximum of 256 extensions: the 6-slot KX-TDE100 (128 IP extensions via main processor card and 160 analog, digital or IP via cards) and the 12-slot KX-TDE200 (128 IP extensions via main processor card and 256 analog, digital or IP via cards).

Panasonic's KX-TDE is flexible and simple to configure. Except for the processor card slot, all other slots are universal so that any card can be housed in any slot for complete flexibility when configuring the system. Based on the company's earlier KX-TDA platform, the KX-TDE uses the same power supplies and most circuit cards, but adds a pre-installed main processor card with IP (trunk and station) and LAN ports that enable pure IP connectivity. Existing Panasonic KX-TDA customers can easily upgrade to KX-TDE with just the new main processor card. Panasonic telephones are reusable, including legacy KX-T7400 and KX-T7000 series, which allow Panasonic customers with older systems to retain much of their equipment investment.

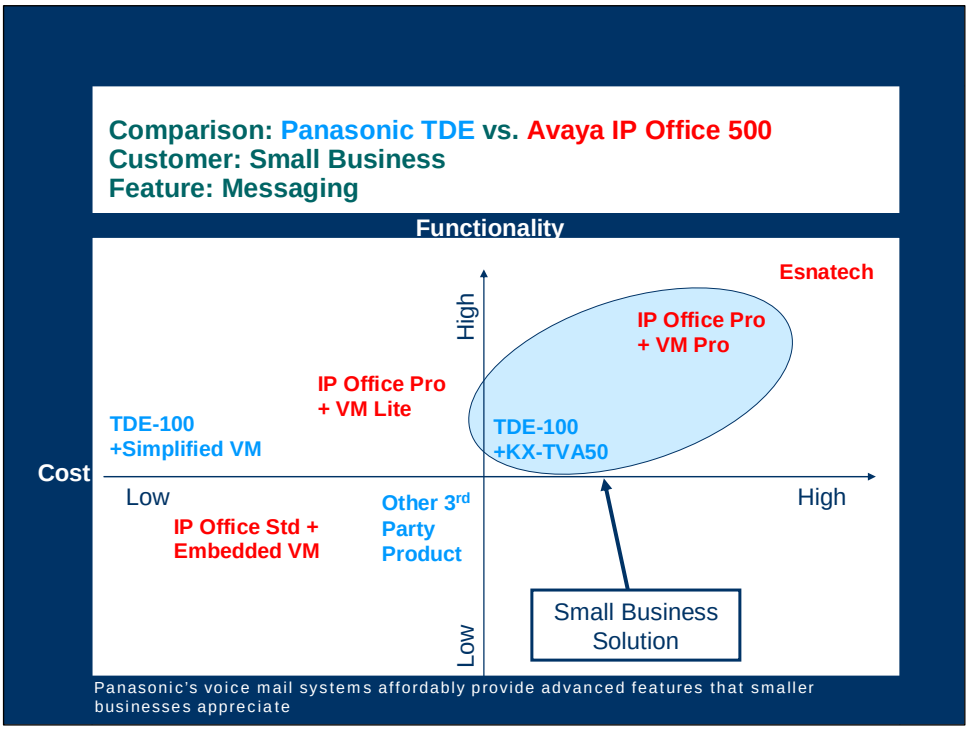
Earlier Avaya Partner, Merlin or Definity system cabinets and circuit cards cannot be reused with IP Office, and several phone models are not supported. The Avaya IP Office slot configuration is structured. For the Standard Edition software, only four slots are available. Eight expansion module slots can be activated with the Professional Edition software via license keys. To reuse cards from an earlier IP Office system requires purchasing the IP Office Legacy Card Carrier, although it does not support all legacy IP Office 400 cards.

With an integrated technology platform, Panasonic provides its customers investment protection, both in terms of prior systems and future purchases.

The systems are compared on the basis of features important to small businesses. For each feature, a graph shows the trade-off a customer can make between cost and the features that they want or need:



Messaging



Avaya IP Office 500 Standard Edition requires a card upgrade to obtain *Embedded Voicemail* (two ports), which is very basic, and does not support broadcast, call screening, live record and other popular features.

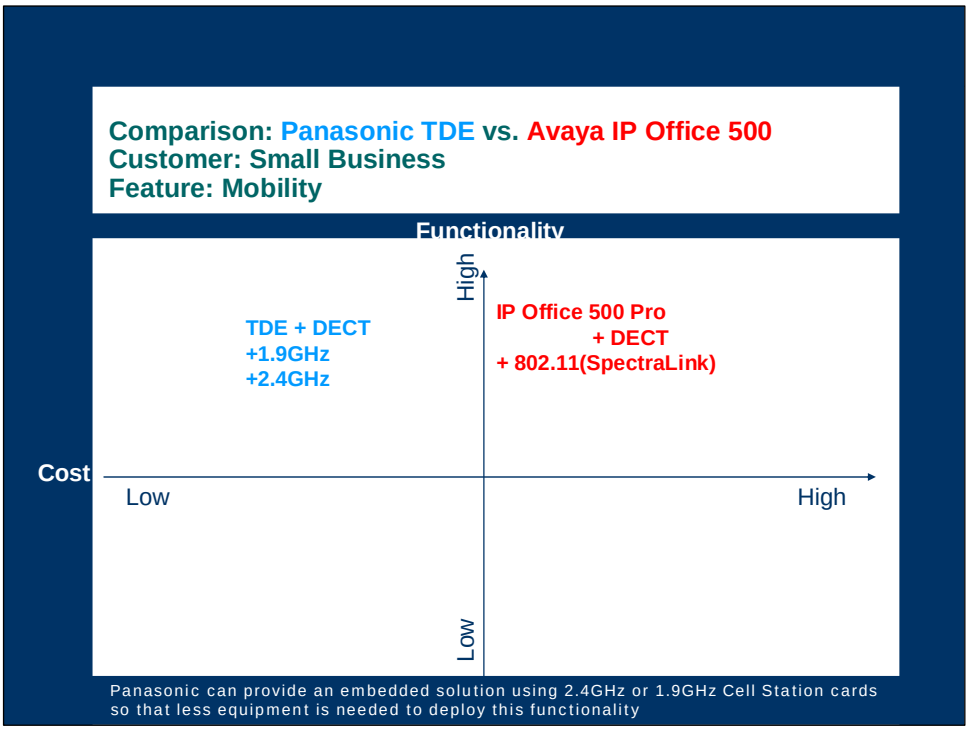
An upgrade to IP Office 500 Professional provides *Voicemail Lite* as standard, and the option for *Voicemail Pro* through a software upgrade and external server. *VoiceMail Lite* (2 or 4 ports) provides basic voice mail, and copying/forwarding as e-mail, but does not support some popular voice mail features available on Panasonic's KX-TVA platform, such as an auto attendant, live call recording, reporting and support for centralized voicemail. *VoiceMail Pro* (2-16 ports) is Avaya's most popular option. It adds a GUI interface (VoiceMail Pro Manager), auto attendant, queue announcements, call recording, Campaign Manager, 20+ language prompts, centralized voice mail. Options include growth to 30 ports, a unified messaging capability to forward voice mail to any MAPI-compliant e-mail application as a .WAV attachment, Microsoft Exchange e-mail system integration and text-to-speech. It is not compatible with the Standard Edition's *Embedded Voicemail*, so information cannot be copied for an upgrade. IP Office 500 is also compatible with third party *Esnatech* advanced unified messaging platforms.

The KX-TDE processor card supports the optional *Simplified Voice Messaging (SVM),* a 2-port answering machine service with very basic voicemail functionality, including recording and storing personal greetings, message waiting lamp, storing, playing back and clearing messages (up to 125 greeting/voice messages; maximum total recording time of 60 minutes default or up to 120 minutes).

KX-TDE also digitally integrates with Panasonic's *KX-TVA* or *KX-TVS* voice mail servers. *KX-TVA50* (6 ports, 8 hours of voice storage and 64 mailboxes) and *KX-TVA200* (24 ports, 1,000 hours of voice storage and 1,024 mailboxes) offer popular voice messaging features, including call screening, call recording, fax detection and interview service. E-mail Integration or message notification by e-mail notifies a user that they have a new message in their voice mailbox; the recorded voice message can be added to the e-mail as an attachment. *Panasonic's Personal Custom Service* allows 9 call destinations per personal greeting. KX-TDE is also compatible with *conventional DTMF (analog) voice mail systems* from third party vendors.

Panasonic's voice mail systems affordably provide advanced features that smaller businesses appreciate. The KX-TVA200 has ample storage for any small business, and its features are superior to Avaya's VoiceMail Pro in areas that improve employee-customer interactions, such as Caller ID features (Name Announcement, Personal Greeting and Call Routing) and Panasonic's Personal Custom Service. Voicemail Pro does not support some valuable productivity features that are standard on KX-TVA, such as Call Screening and Delivery Confirmation.

Mobility



Avaya IP Office 500 supports four types of wireless: *IP DECT*, *900MHz*, *WiFi*, and "*Mobile Twinning*."

Twinning is an optionally purchased license on R4.0.7 or higher, so that a secondary phone can be an internal extension on the IP Office system or an external phone such as a cell phone simultaneously rings. External twinning does not support all the call types supported by internal twinning: coverage, intercom, returning transferred/held/parked, paging and follow me calls cannot be twinned with an external phone.

IP Office DECT supports up to 120 handsets in different offices connected via a WAN with up to 32 base stations and IP protocol based on H.323. Digital Wireless uses the 902 to 928 MHz ISM (Industrial, Scientific, and Medical) band with the 3810 wireless telephone (maximum of 5 per zone).

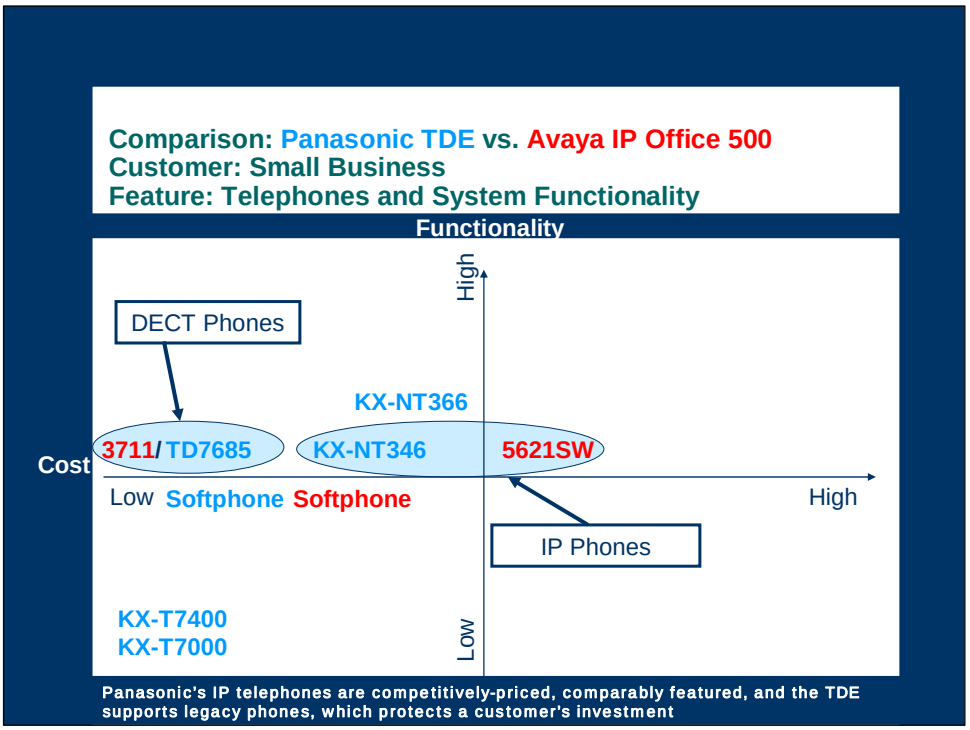
The IP Office voice over wireless LAN solution uses 3616, 3620 and 3626 802.11b or 3641 and 3645 802.11 a/b/g phones (all OEM from SpectraLink) with Avaya Voice Priority [Ethernet] Processors (10, 20 or 100 depending on number of simultaneous calls) to ensure voice quality.

Panasonic can provide mobility as an *embedded* solution using 2.4GHz Cell Station cards or 1.9GHz Cell Station cards, which reduces the equipment needed to deploy wireless compared to IP Office. The DECT or 2.4GHz Cell Station cards can be housed on Panasonic KX-TAW848, KX-TDA or KX-TDE systems. Two 1.9GHz DECT wireless handsets are currently available (*KX-TD7685 and KX-TD7695*) as well as two 2.4GHz wireless handsets (*KX-TD7684 and KX-TD7694*).

In North America, Avaya supports only the *3711 DECT* handset, which compares with the *KX-T7685 DECT* cellular wireless phone, one of two Panasonic DECT wireless handsets. Both offer a display (5- or 6-line), speakerphone and speed dial from a phonebook, which are desirable features for a smaller business. The Panasonic *KX-T7685* and Avaya *3711* are similarly priced at about $180, but when the cost of cards, base stations and other equipment is included, the Panasonic wireless solution results in a less expensive cost per user.

Both vendors offer a mobility solution; however, Panasonic can provide an embedded solution using 2.4GHz or 1.9GHz Cell Station cards so that less equipment is needed to deploy this functionality. Avaya's wireless implementations require external components such as gateways, appliances and/or Access Points, which are more costly compared to the integrated Panasonic Cell Station card solution.

Telephones



IP 4600 Series phones and *24xx* digital phones are generally compatible across IP Office, DEFINITY and Communication Manager systems. Partner key system phones are not reusable on IP Office. Variants of Avaya's *46xx* series phones called the *56xx* series are designed specifically for IP Office, and are not compatible with Avaya Communication Manager. IP Office R4.0 (or higher) will not support *4606, 4612, 4624* IP phones, which may mean an existing Avaya customer cannot reuse this investment.

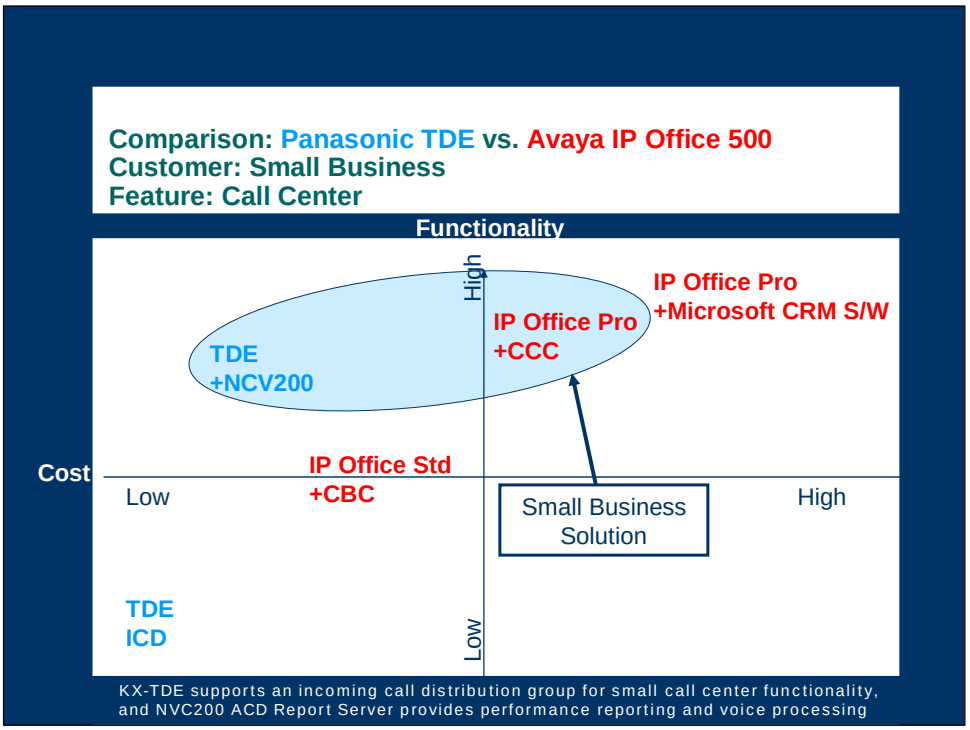
Panasonic's KX-TDE system supports *KX-NT* IP telephones, Panasonic IP *Softphones*, some third party *SIP* hard/soft phones, and earlier Panasonic proprietary IP, digital and electronic phones. The KX-TDE is backward compatible with legacy *KX-T7400* and *KX-T7000* series.

For a new customer sale, Panasonic's *KX-NT346* IP Phone is equivalent to Avaya's *5621SW* IP Phone. Both have comparable buttons and display, PoE support, dual-port Ethernet and add-on modules for extra keys, as well as popular features such as conference, speakerphone/mute, speed dial and distinctive ringing that would be important to a small business customer. The Panasonic phone, however, is list priced about $45 lower.

Businesses focused on improving employee productivity will appreciate Panasonic's new *KX-NT366* IP telephone with a flexible, self-labeling display. Each of 48 (12x4) buttons can be labeled on the LCD screen to reflect its function.

Depending on system size, features and deployment of IP, phones can represent up to 80% of the cost of a new system. Panasonic's IP telephones are competitively-priced and comparably featured. Panasonic offers a standard line of phones that work on all of its systems and supports legacy phones from older systems, so customers' investments can be reused on the TDE. IP Office is not compatible with Avaya's other systems, so customers could be at risk for future stranding of investment.

Call Center



Avaya IP Office 500 Standard Edition optionally supports *Compact Business Center (CBC)*, an entry-level, voice-only application for small informal call centers (2-15 agents, 3 groups, historical reports, real-time statistics, performance indicators). *CBC* provides visual alarms on lost calls, trunk utilization, queued calls and available agents, but also provides e-mail notification to business staff and system administrators to increase trunk capacity or add agents.

A license upgrade to Professional Edition supports the optional *Compact Contact Center (CCC)* client/server software for up to 75 agents and 21 supervisors. *CCC* incorporates multi media routing of voice calls, e-mail, web chat, web callback with reporting of all media types (70+ standard and custom reports). The *CCC agent desktop* application combines phone, e-mail and web contacts on a single PC; IP Office Microsoft CRM Integrated Software can be added for additional functionality such as screen pops and outbound dialing from a PC.

Panasonic KX-TDE includes valuable functionality for a small call center without having to add any options. An *incoming call distribution (ICD)* group acts as a small call center with call queuing, wrap-up, member login/logout distribution to longest idle agent and VIP Calling (can assign priorities to call groups); *Uniform Call Distribution* (UCD) distributes calls evenly to the extension following the last extension to answer a call and supports 128 groups with 128 extensions per group. A supervisor display extension can be assigned to monitor call statistics such as number of calls waiting and to change member status. Cellular phones can be part of an ICD group (maximum four per group).

Panasonic's *KX-NCV200* two-in-one system (*ACD Report Server* and *the KX-TVA200* Voice Processing System) enables both call center reporting and voice processing with the KX-TDE. Agent and group reports from incoming call data, including real-time call information such as extension status, call type and telephone numbers, are displayed to the ACD Report Client Windows-based PC.

While the Panasonic KX-TDE does not support full-featured ACD, an incoming call distribution group can provide small call center functionality, and Panasonic's ACD Report Server provides performance reporting and voice processing in a single server system – two important functions in one