allworx ®
communications without compromise

24x

Allworx® 24x Overview

Award-winning phone systems for small and medium businesses

1 **2** **3**

Phone system

- Full PBX & Key System
- Remote User
- Site-to-Site Access
- Unified Messaging
- Voice Over Internet

Network server

- Automated Back-up
- Email/Web Server
- Internet Security
- LAN Network
- WAN Access

Advanced features

- Call Assistant™
- Call Queuing™
- Conference Center™
- Group Calendaring™
- Internet Call Access™
- VPN

Thousands of SMBs have made the smooth, risk-free VoIP
transition with Allworx ... the only solution combining the features,
reliability and price of traditional systems with the benefits of VoIP

It's true! Small and medium businesses can have it all!

Designed for companies with up to 100 users, the Allworx 24x system is an all-in-one communication system integrating a feature-rich phone system and a robust data network solution with advanced features that substantially improve your company's productivity while saving you on-going monthly costs. The integrated T1/PRI capability provides even more cost savings and reliability than any other offer in the industry. The Allworx 24x is the only system with **multiple built-in connections**:

- ▶ Traditional phone lines
- ▶ T1/PRI circuit for voice
- ▶ Ethernet or T1 for ISP data service

The Allworx 24x System, shown with the Allworx 9212 phone.

Key advantages for businesses

Many companies make the claim that they are the best or the easiest, but few can back up these claims. Allworx makes it easy to see why it is the **only right choice** for your business.

More savings for you

Allworx is the absolute lowest installed cost of any fully-featured VoIP and PC network system!

▶ **Best price** — with no need for gateways, expansion cards or other third-party products, Allworx is truly the lowest installed cost in the industry.

▶ **No hidden charges** — Allworx pricing is straightforward and uncomplicated.

▶ **Free multi-site and Internet calling** — with our Internet Call Access™ option, calling between sites is free and saves additional money by switching to an ITSP for telephone service.[1]

▶ **Instant remote access** — remote users connect instantly without extra hardware, software or cost.

▶ **No per-seat software charges** — software options have one-time fees with unlimited use.

No compromising on features

Allworx is the only analog, VoIP and PC network solution available with a complete feature set for small businesses.

▶ **Same features, same operation** — calls continue to work like your traditional phone system, so the switch to an Allworx system is transparent to users.

▶ **Analog and VoIP** — keep your analog lines for 911 use, backup and some incoming calls, while instantly connecting to ITSPs for low-cost long distance calling.

▶ **New features** — voicemail storage, follow me calling, unified messaging, Group Calendaring™ and more.

▶ **Enhanced conference calling** — with the Allworx Conference Center™ option, you get the amazing power of four eight-seat conference bridges.

▶ **Flexible voice and data access** — no other system offers built-in connections to traditional phone lines, T1/PRI, and Ethernet or T1 for ISP data service!

Transition at your own pace

New technology can be daunting. That's why Allworx gives you the largest set of traditional telephone capabilities of any VoIP solution in its class! Now you can simultaneously use both analog and VoIP phone connections as you control the pace of your transition to new technology.

▶ **You control when to use VoIP** — The T1/PRI and analog port capabilities in the base configuration allow you to control the move to VoIP … so you can do it without disrupting your business operations.

▶ **You control when to add features** — power features like call queuing, multi-site calling, live answer position and VPN are activated via easy software keys … add them as you need them.

It's got to be easy

Whether you are installing a single site or linking together multiple offices and remote users, no other system comes close to providing the simplicity and speed of installation.

▶ **Easiest to use** — intuitive interface makes the Allworx system the easiest to use and administer.

▶ **Easiest to install** — get the system up and running in hours, not days.

▶ **Simple transition** — it's easy to use the new system without skipping a beat.

▶ **Multi-site/remote users** — no additional investment in time, hardware and software.

▶ **Easiest access to Internet calling** — multiple service providers to choose from.

Allworx is the answer!

Phone system

The 24x includes a Key/PBX system that offers flexibility, expandability and an unbelievable feature set.

Technical specifications

Phone interface

- 100 user extensions (e.g. individuals) with voicemail and 100 system extensions (e.g. conference rooms) without voicemail. Base system comes configured for up to 24 users and 24 system extensions. Optional software upgrades available for 25–48 users/extensions and 49–100 users/extensions.
- Primary Rate ISDN (PRI) line supported on T1 interface for 23 digital "B" channels via T1-A interface.
- ISDN switch types for PRI: 4ESS, 5ESS, DMS-100, NI-2.
- Three RJ-11 dedicated loop start FXO ports supporting CO (Central Office) lines, expandable to 21 with Allworx Px 6/2 Expanders.[1]
- Five standard, dedicated RJ-11 FXS ports for analog phone or fax, expandable to 11 with Allworx Px 6/2 Expanders.[1]
- Supports SIP 2.0 (Session Initiation Protocol) for VoIP.
- Allworx supports both analog and VoIP phones. All VoIP phones are connected on the Local Area Network (LAN).
- Fax machine support—does not require a new CO line; system automatically utilizes the trunk for outgoing calls when not in use.
- Power Fail Phone Port for a dedicated analog phone ensures connectivity during power failure.
- Industrial strength surge protection built into all analog ports.
- TAPI compliant—automatic dial.[1]
- Each Allworx handset can have its own Direct Inward Dial (DID) information.
- 3-Way Calling — Each Allworx phone on the network can support its own three-way call.
- Seamless integration with Call Assistant.
- "Park" and "Hold" buttons on the handset.
- Fast and simple navigation of scrollable phone menus.

Unified messaging

- Receive, review and respond to all email, voicemail and meeting requests in one InBox.
- Listen and respond to voicemail messages via PC.
- Supports and consolidates multiple email accounts and phone extensions per user.
- Supports voicemail notification to cellular text messaging services.
- Compatible with any POP3 or IMAP4 email client.

Auto attendant

- Nine unique auto attendants.
- Time-dependent Auto Attendant routing options for day and night mode business hours.
- Compatible with Music On Hold and Overhead Paging systems.[3]
- Auto attendant can be fully customized.

Internet Telephony Service Providers (ITSP) [2]

- Connect the Allworx 24x to an ITSP and drastically reduce phone charges.
- Supports both ITSP and traditional phone lines (Central Office lines) simultaneously.
- Apply different dialing rules to different telephone services (i.e. ITSP vs. local telephone company).
- SIP Appearance functionality with incoming and outgoing VoIP calls.
- Allworx 24x is compatible with various ITSPs.[2]

Multi-site calling [1]

- Each Allworx 24x can connect to other Allworx units — supports up to 100 sites.
- Calls between offices are free over the Internet — no ITSP required.
- Calls can be seamlessly transferred between sites.
- VPN software not required.
- Multi-site extensions allows businesses to setup and use a convenient 3-digit or 4-digit dialing plan across Allworx servers in multiple sites

Presence management

- Each phone user gets seven unique phone Presences (In Office, At A Meeting, On Vacation, On Business Trip, At Home, Away, Busy).
- Current presence is displayed on Allworx phones and built-in My Allworx Manager site for other users to see.
- Authorized users can change call routes over the Internet via My Allworx Manager. *NEW!*
- User can "toggle" between presence settings via Allworx phone display, voicemail, My Allworx Manager site or Allworx Group Calendaring software.
- Each presence setting has its own call routing structure that can be changed at any time.
- Call routing structure can be changed by the Allworx System Administrator or user via the Group Calendaring software.

Remote users

- Remote IP phone users connect to Allworx 24x via Internet.[6]
- Remote plug-n-play with Allworx VoIP phones.
- After initial setup, remote Allworx phones connect easily to Allworx 24x with minimal user intervention.
- Remote Allworx phones can:
  – be programmed from main office
  – receive calls from queue(s)
  – use Intercom feature
  – access main office's local phone line from any location (call from overseas at local rates)
  – operate without additional VPN or VoIP license
  – access all other main phone functions (Direct Station Selection, Busy Lamp Field, Line Appearances, Call Appearances, SIP Appearances, Queues).
- Non-Allworx phones will work, depending on the type of phone used.[5]

Voicemail

- Receive SMS text message alerts on your cellphone when voicemail is left at the office. *NEW!*
- Escalate your text message alerts to multiple mailboxes and email addresses. *NEW!*
- 1000 hours of voicemail — virtually unlimited voicemail capacity.
- Listen to and manage voicemail in your email InBox or over the phone.
- Reply to voicemail with email; include voicemail in outgoing email message as an attachment.
- Voicemails are automatically purged from phone when managed from email InBox.
- 16-port voicemail system; date and time stamping.
- Messages can be listened to, saved, deleted or forwarded to another extension.
- Direct access to voicemail from on and off site.
- Message Waiting and New Call indicators supported through Allworx phones and client software.
- Voicemails can be sent to any POP3 or IMAP4 email client.
- User can record a separate voicemail greeting for each of their Presences.
- One phone can display multiple voicemail indicator lights by mapping PFKs to other mailboxes. *NEW!*

Follow-Me-Anywhere calling

- Routing can simultaneously follow multiple phones, including outside lines and cell phones, and terminate at the internal or external line of your choice. *NEW!*
- Establish seven unique phone presences, each with its own routing rules and filters.
- Filter rules drive routing paths based on incoming Caller ID.

Off-Site Calling access   *NEW!*

- Make outbound calls through the Allworx system by calling into your voicemail from any phone.
- Authentication through voicemail system helps prevent abuse.
- Off-site Access calls leverage the company's Caller ID information and local system phone lines (Analog or SIP).
- Call information is tracked for call detail reports.
- External dial tone returns after recipient hangs up (to make multiple calls).

Industry compatibility
- Compatible with third party SIP 2.0 compliant endpoints, including phones, gateways and wireless devices.
- Supports G711 and G729 endpoint connections.
- Compatible with ITSPs (Internet Telephony Service Providers).[2]
- Supports SIP 2.0 (Session Initiation Protocol).

Security
- Outbound call control with PIN codes and system-wide blocking.
- Password protection at both user and administration levels.
- Call detail reporting of all phone system activity with easy export to Microsoft Excel or any standard spreadsheet program for further analysis.
- System backup and restore — automatically saves configuration attributes, voicemail and email messages.

High end calling features
- Four (4) built-in eight seat conference bridges.
- Each Allworx phone on the network can support its own three-way conference call.
- Programmable dialing plans route your calls to the lowest cost long distance provider.
- Broadcast message capability — internal or external distribution lists.
- One Touch Day-Night Mode PFK Button allows users to toggle between day and night modes at the press of a button.
- Multiple Language Packs are available in English and Castilian Spanish. Two languages are supported at the voice prompt level. ***NEW!*** [1]
- Powerful call control functions, including:
  - Audited outside line access
  - Call blocking
  - Call forward and transfer
  - Call hold
  - Call monitors
  - Call park and retrieve
  - Call pickup
  - Call Queuing[1, 4]
  - Call routing
  - Call waiting
  - Caller ID
  - Dial by name or extension; dial from directory
  - Distinctive ring
  - Do not disturb
  - External call diversion
  - Flexible numbering plan
  - Hunt groups
  - Internal extension distinctive ring
  - Multiple line access
  - Overhead paging[3]
  - Parking orbits
  - Programmable parked calls ***NEW!***
  - Private lines
  - Redial
  - Speed dialing
 - TAPI support — automatic dialing.[1]

Allworx system administration

The Allworx 24x — a powerful and flexible convergence technology device — has an intuitive and easy-to-use user interface. Every Allworx 24x comes standard with software that makes even the most complex system administration tasks easy to do.
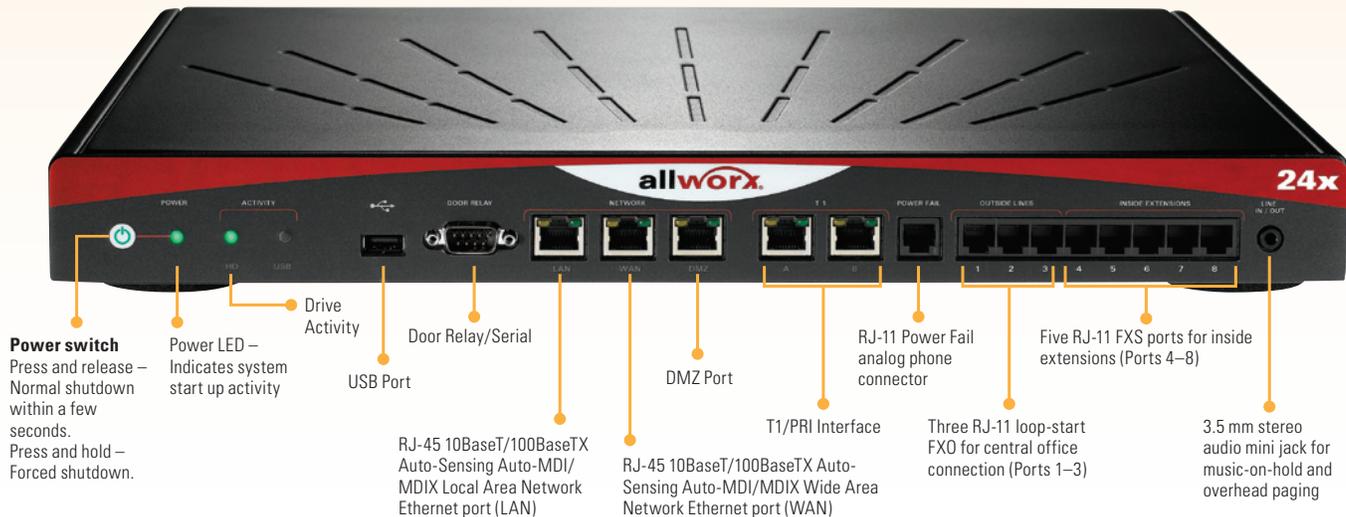
Technical specifications

- All administrative functions (system, setup, diagnostics) are accessible via browser-based interface.
- Setup and management of entire system done via single interface: phones, networks, servers, users, maintenance and reports.
- Moves, Adds and Changes are implemented via easy and intuitive interface.
- Allworx software upgrades are quick and easy.
- Includes on-line, easy-to-follow installation steps.
- Fully controlled restore and backup functionality with Allworx OfficeSafe™.
- Remote VPN Administrative access.
- Network installation tools: ***NEW!***
  - DHCP Server Discovery Tool identifies IP and MAC addresses of all other DHCP servers on the LAN
  - Trace Route Tool maps the paths packets take through the network.

- Spam blocker setup by Admin to select from free or pay-per-use spam block list services.[3]
- Software key enabling of features and options.
- Feature Key Retrieval allows Admin to obtain and submit Feature Keys through the Allworx System Administration page. ***NEW!***
- Online help functions built in.
- View and manage email queue.
- Flexible call routing:
  - Select routes to other sites, or route calls directly to the lowest cost long distance provider.
  - Create virtual extensions for remote users.
  - Create virtual organizations.

Refer to Allworx System Administration brochure for more information.

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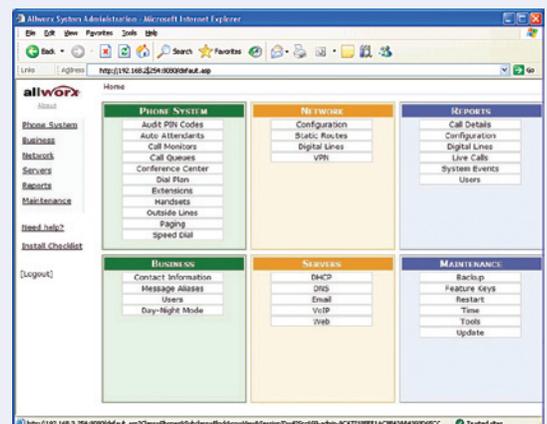
Network server

Ultimate SPI firewall security, full PC router, robust WAN access with POP3, IMAP4 and SMTP email, and web hosting with support for HTTP and FTP make the Allworx 24x a powerhouse business server.

Power switch
Press and release – Normal shutdown within a few seconds.
Press and hold – Forced shutdown.

Power LED – Indicates system start up activity

Drive Activity

USB Port

Door Relay/Serial

RJ-45 10BaseT/100BaseTX Auto-Sensing Auto-MDI/MDIX Local Area Network Ethernet port (LAN)

DMZ Port

RJ-45 10BaseT/100BaseTX Auto-Sensing Auto-MDI/MDIX Wide Area Network Ethernet port (WAN)

T1/PRI Interface

RJ-11 Power Fail analog phone connector

Three RJ-11 loop-start FXO for central office connection (Ports 1–3)

Five RJ-11 FXS ports for inside extensions (Ports 4–8)

3.5 mm stereo audio mini jack for music-on-hold and overhead paging

Technical specifications

Hardware interfaces
- Dedicated interface for RFC-1662 PPP Internet connectivity on T1-B.
- One RJ-45 10/100 Base-T WAN port for Internet connection from DSL, cable modem or T1.[6, 8]
- One RJ-45 10/100 Base-T LAN Ethernet port.
- One RJ-45 10/100 Base-T DMZ Ethernet port.
- Three RJ-11 dedicated loop start FXO ports, expandable to 21 with Allworx Px 6/2 Expanders.[1]
- Five RJ-11 dedicated internal FXS ports, expandable to 11 with Allworx Px 6/2 Expanders.[1]
- One RJ-11 Power Fail analog phone connector.
- One 3.5mm mini jack for Overhead Paging[3] and Music On Hold.[3]
- Door Release Relay.
- Overhead Paging Amp Control.

Full router and firewall
- SPI (Stateful Packet Inspection) firewall security.
- NAT (Network Address Translation) mode.
- Network port forwarding capability.
- Ethernet-based WAN access direct from DSL or cable modem.
- Static IP, DHCP client or PPPoE support on WAN Port.
- DMZ (Demilitarized Zone) mode to protect WAN interface — stealth and normal modes.
- SIP Proxy registration services provided through Allworx.
- Fully functional SPI firewall/router between LAN and WAN.
- Standard data router capability.
- System administration software allows you to set routing tables.

Networking
- Public WAN interface and fully secured LAN subnet.
- Email server — POP3, IMAP4 and SMTP email standards supported.
- Web server — Intranet and Internet with HTTP and FTP functionality.
- Built-in company Internet and Intranet site.
- DHCP (Dynamic Host Configuration Protocol) server to LAN.
- DHCP client support on WAN Port.
- Fully integrated DNS (Domain Name Server).
- TCP/IP routing support between LAN/WAN.
- PPPoE (Point-to-Point Protocol over Ethernet) capability on WAN Port.
- Supports classful and classless routing.
- Supports use of external SMTP Smart Host for routing email.
- Network installation tools: **NEW!**
  - DHCP Server Discovery Tool identifies IP/MAC addresses of all other DHCP servers on the LAN
  - Trace Route Tool maps the paths packets take through the network.

Electrical and regulatory information
- Line voltage: 120V AC.
- Frequency: 60Hz.
- Typical use: 12W.
- Environmental conditions: 0° – 40° C, 15% – 90% RH, non-condensing.
- UL listed. FCC Class B.

Size and weight
- 17 × 1.75 × 12 inches (43.2 × 4.4 × 30.5 cm).
- Weight: 9.5 lbs.
- Fits 19-inch rack; table, rack or wall mountable.

Remote office and multi-site calling
- No additional software or hardware is required for Allworx phones to work as remote phones.
- Connect up to 100 Allworx systems for multi-site calling.[1]

Options
- Allworx Px 6/2 Expander.[1]
- Allworx Call Assistant™.[1]
- Allworx Call Queuing™.[1]
- Allworx Conference Center™.[1]
- Allworx Group Calendaring™.[1]
- Allworx Internet Call Access™.[1]
- Analog and VoIP phones.[1, 3]
- Analog Station Gateways.[3]
- CO Line Expansion Units.[3]
- Music On Hold Devices.[3]
- Network Switches.[3 p]
- Power Over Ethernet Switches.[3]
- Uninterruptible Power Source (UPS).[3]
- Virtual Private Network (VPN).[3]
- TAPI (bundled with Call Assistant).[1]
- Multiple Language Packs.[1]

Advanced features

Allworx provides Advanced Feature options to help your business increase its productivity, efficiency and customer response.

Technical specifications
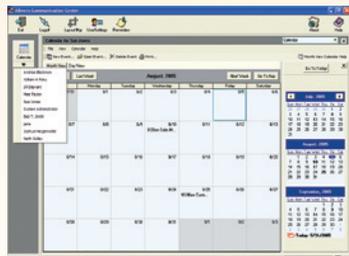
Group Calendaring™[1]

Calendaring

- Individual calendars — each user defines who can view their calendars.
- Group Calendaring across all users (local and remote) — automatically identifies open schedule times, can send batch meeting invitations.
- System tracks accepted and declined meetings.
- System automatically updates attendees' calendars.
- Manage facility resources (reserve conference rooms, projectors, etc.).
- Calendar appointments are flagged in email InBox.
- Popup reminders for appointments.
- Travel times tracked with meetings.
- Meeting notifications can be sent to external individuals or groups not using Allworx.
- Supports recurring, private and public meetings.
- Supports attachments and notes to calendar appointments or notices.
- Month and day calendar views.

My Allworx Manager

- Allworx automatically generates a company Intranet site containing web pages with user calendars, access to shared folders, phone extensions, user's current presence status, company directories, call queue statistics, users' conferences and other useful information.

Contact management

- Users manage their own contact information.
- Shared contact information (employee and client) is automatically updated in everyone's database.
- Contacts can be private or public.
- Contact database can be exported to Microsoft Excel.
- Import records in comma-separated (.csv) format.
- Company directory automatically updates to each user's contact database for shared contact information.

Email[7]

- Receive, review and respond to email.
- Supports HTML, RTF and text-only formats.
- Tools include spell checker, thesaurus, preview panes, send/reply/forward, and more.
- Messages are identified by priority status and type (email, voicemail or meeting request).
- Create custom folders to organize messages.
- Automatic notification if email delivery is delayed.
- Supports multiple mail domain names.
- Works with Microsoft Outlook/Express and most other POP3 email applications.
- Distribution lists (voicemail and email).

Internet Call Access™[1]

- Internet Call Access using SIP protocol:
  – Multi-site connectivity
  – Users access Allworx VPN through Microsoft's Network Connection Tool.
- Multi-site calling does not require an ITSP service.
- This option is required when you want to call directly between multiple Allworx sites or connect the Allworx to an ITSP.[2]

PC   Allworx 9212   Allworx 24x
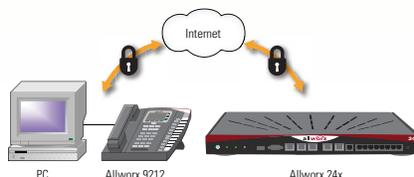
Virtual Private Network (VPN)[1]

- VPN (Virtual Private Network)[1]—PPTP (Point-to-Point Tunneling Protocol) security.
- PPTP-based VPN for up to 16 simultaneous users.[1]
- One VPN license comes standard for the system administrator.
- Access Allworx remotely via VPN and get full functionality (email, calendaring, directory, etc).


Conference Center™[1]

- Full administrative view of users and conferences.
- Setup conference calls 24/7.
- Secure conferencing option – ID and Password protection.
- Centralized scheduling and moderation of calls.
- Easy-to-use graphical user interface.
- Seamless integration with Allworx systems and phones.
- Quick and easy installation.
- Ability to create reoccurring conference calls.

Conference Center capability by system

Allworx System	Conference Center(s)	Seats/ Conference	3-way Conference
24x	4	8	•
10x	N/A*	N/A*	•
6x	1	8	•

* Conference Center is not available on the Allworx 10x
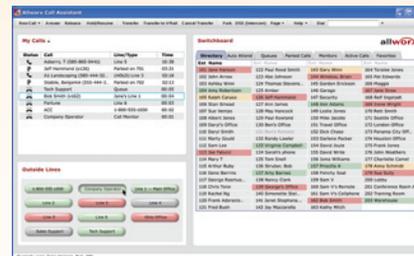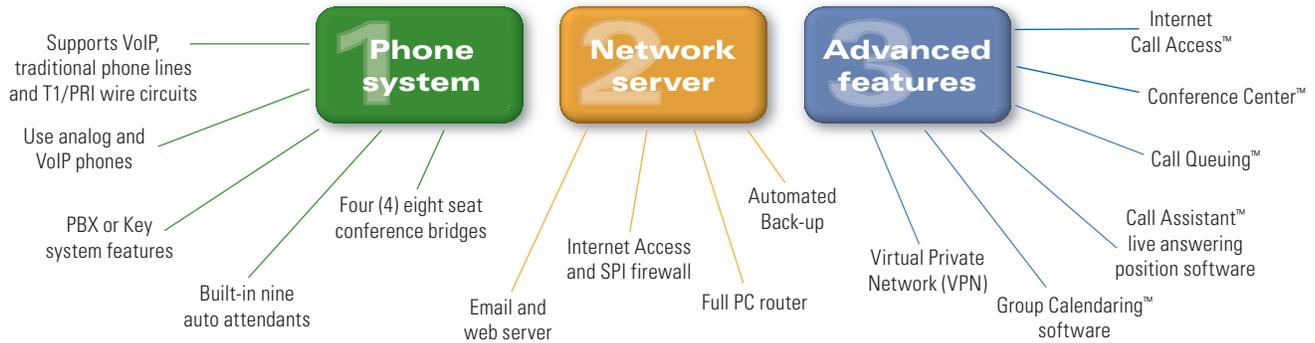

Call Assistant™[1,4]

- Live answering position.
- Software tool; works in conjunction with any Allworx phone.
- All key calling functions available via software — answer, release, hold, transfer, park, etc.
- View status of all users.
- Manage outside lines, auto attendants, queues, parked calls, monitors, etc.
- Record calls directly from the Allworx Call Assistant. Active calls can be recorded by a simple click in your Call Assistant Tool Bar.
- Call History screen allows users to record incoming and outgoing calls with the Call Assistant and quickly redial those contacts at the touch of a button.

Call Queuing™[1,4]

- Ten queues supported with up to 32 calls across all queues.
- 16 calls available for each queue.
- Customizable queue messages.
- View continuously updated queue status on your PC (number in queue, longest wait time, average wait time).
- Call Details Report available — export to Microsoft Excel for further analysis.
- All phones ring when caller is in queue, first one to answer gets caller.
- Remote users can participate in queue.
- Each phone can be set to ring after:
  – X number of callers in queue
  – Caller(s) have waited longer than X seconds.
- Phones can answer multiple queues.

Allworx 24x System

1 Phone system

- Supports VoIP, traditional phone lines and T1/PRI wire circuits
- Use analog and VoIP phones
- PBX or Key system features
- Built-in nine auto attendants
- Four (4) eight seat conference bridges

2 Network server

- Email and web server
- Internet Access and SPI firewall
- Full PC router
- Automated Back-up

3 Advanced features

- Internet Call Access™
- Conference Center™
- Call Queuing™
- Call Assistant™ live answering position software
- Group Calendaring™ software
- Virtual Private Network (VPN)

How it works

A Incoming call enters New York location via phone lines or VoIP.

B Call is answered internally via PBX or Key functions, or routed to remote location.

C Call is routed to remote user in California according to user's presence management settings.

D California user transfers call to office site in Australia, who then conferences in additional users (local or remote).

E The Allworx 24x handles the entire process in a manner transparent to the caller, and because calls are sent via the Internet there are no long distance charges.*

A — **Site 1 — New York office**
IP Phones — Computers, servers & peripheral devices — Local telephone service

B

Data & voice

Internet*

Site 2 — Australia office
IP Phones — Computers, servers & peripheral devices — Local telephone service

Data & voice

Data & voice

C — **Remote user (California)**
Allworx 9212 phone — NAT Firewall
Laptop, printer & peripheral devices

D

E * Connect Allworx to an ITSP to save on long distance calls, and to an ISP for Internet access.[2]

Footnotes

1. Sold as an Allworx option.
2. Contact Allworx or your authorized reseller for a list of Allworx-certified ITSPs; fees may apply.
3. Sold as a third-party add-on. Third-party products may be purchased from an Authorized Allworx Reseller.
4. Requires Allworx VoIP phones.

5. Non-Allworx VoIP phones will work, but may need additional equipment (i.e. firewall, ATA device).
6. Internet access requires a compatible Internet Service Provider, fees may apply.
7. Allworx is compatible with any email application that supports POP3 and SMTP.
8. Third-party T1 gateway sold as an option from an Authorized Allworx Reseller.