

Hard Phones, Softphones and Next-Gen Systems

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What To Expect From This Session

- Market trends impacting telephony
 - Telephone trends, compatibility
 - IPT Offerings and design expectations
 - Samples of some of today's leading voice terminals
 - Q&A with vendor panel
 - Leaden's Top 10 IPT Predictions
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“A telephone is no longer *just* a telephone – it is an integrated device that extends to anyone’s PC and Enterprise servers as a means of communication among users in the enterprise.”

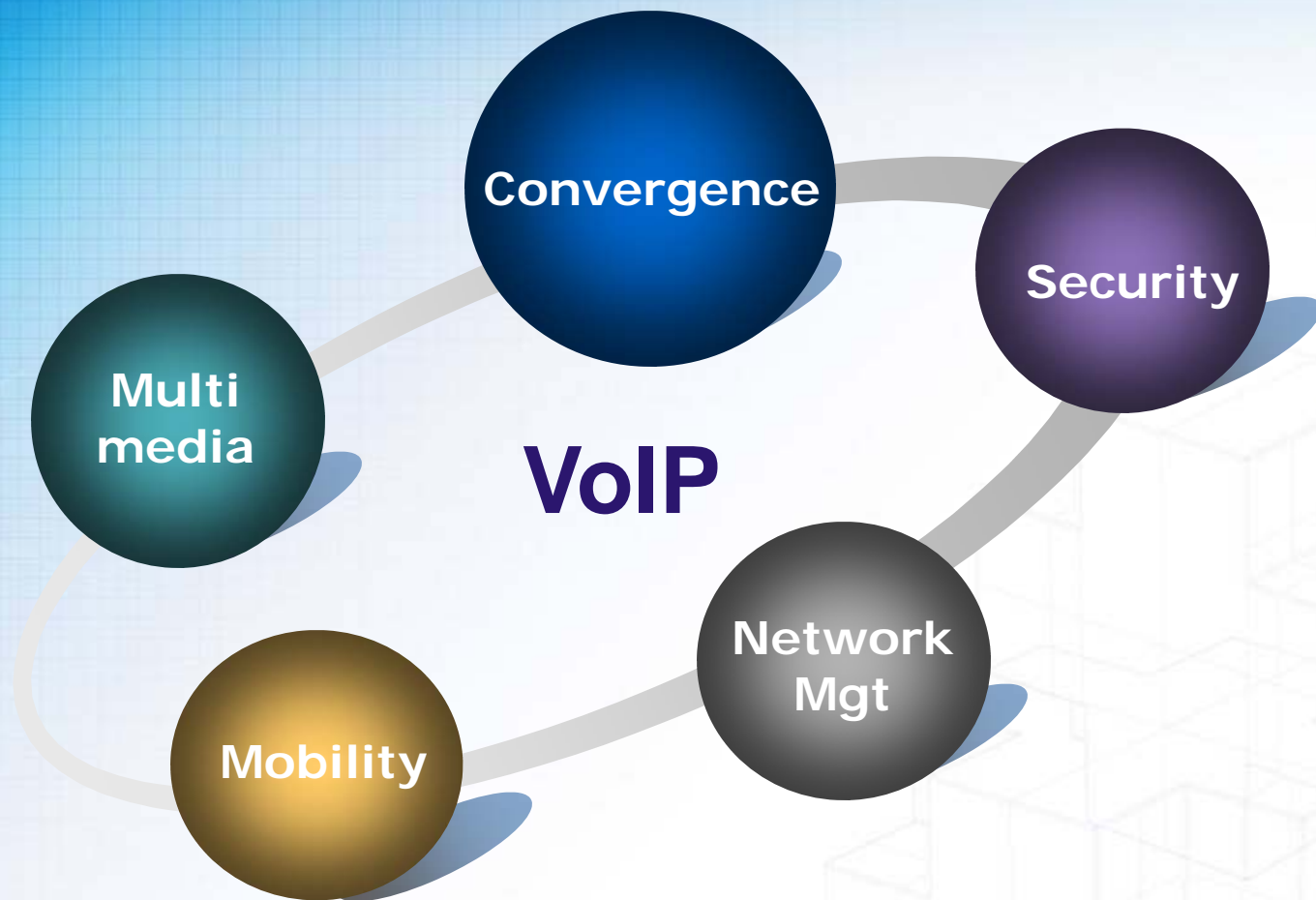
- Stephen Leaden

“Technology for the sake of technology is useless, unless aligned with a strategic purpose that serves well the IT department and the organization as a whole.”

Market Trends

- CIO responsibilities
 - Use IT as a strategic business component
 - Improve productivity
 - Increase revenue, reduce cost
 - Manage significant customer expectations of IT
- Platform shifts from hardware to software/firmware
- Emphasis on open standards
- 24x365 availability, anytime/anywhere models
- New vendors now in the telephony space, i.e., MS, SAP, cellular carriers
- A telephone is now an integrated communications, applications device

Impact of VoIP



Telephony Trends

- No more paper desi-strips
- Soft keys
- Larger screens, better resolution
- Manage footprint
- Smarter phones w/apps
- Better user interfaces
- Shift keys

Telephones Now Capable Of Integrating With

- Softphones
- E-mail (UM)
- Voice Mail (UM)
- Conferencing – audio, video
- IM, Chat

Market Trends – Mobility

- E-mail anywhere
- Voice notification of land voice mail
- Softphones for laptops
- Wireless VPN access, secure
- Wireless phones (on prem) – 802.11x
- Hard phones off site available

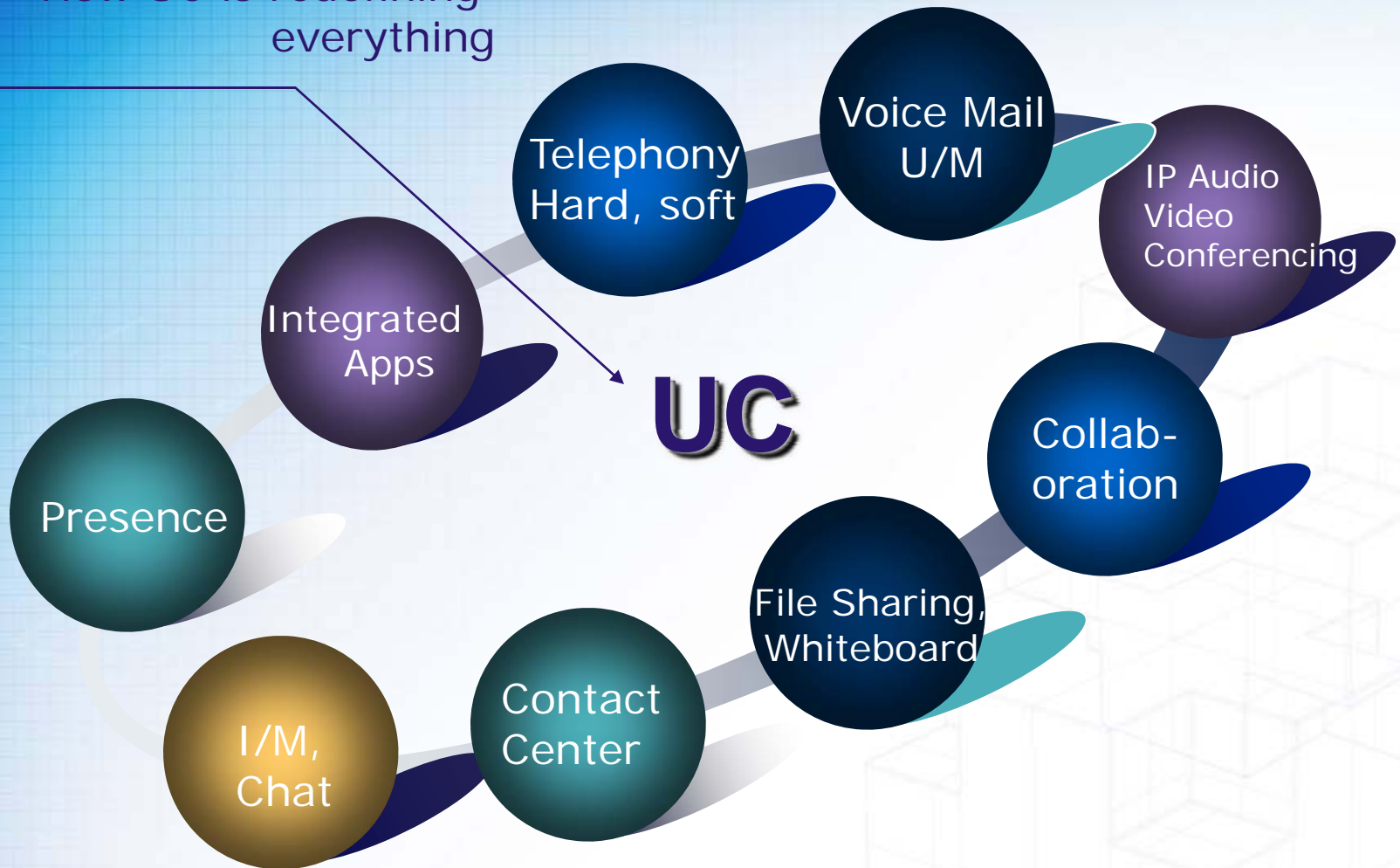


Unified Communications Apps

- IM/Chat
- Presence
- IP audio conferencing
- IP video conferencing
- Web integration
- Document sharing
- MS OCS integration

Unified Communications Model (latest)

How UC is redefining everything



IP Telephone Offerings

- 10/100 NIC cards -> GB cards
- Virtual office
- Converged desktop w/UC apps
- Softphone integration
- UM integration
- Mobile integration
- Wireless integration
- Wireless clients
- DT interactive apps, alerts
- Display Video, Video Streaming, Video Collaboration

IP Telephone Offerings

- User-programmable keys
- Better audio codecs (G.722)
- Desktop diagnostics
- Color screens
- Bluetooth
- SIP compliance, capable
- Active Directory integration
- Web integrated apps
- Security keys
- I/M support
- Downloadable ringers
- Customizable GUIs
- Touch screens

VoIP Design Expectations

- Reliability
 - Five 9s is expected (compared with TDM as a baseline) – to include all network touch points
 - QoS – delay, loss, jitter, echo need to be managed and designed for
- Resiliency
 - Survivability locally
 - Network failover
- Redundancy
 - Processors
 - Power supplies
 - Call servers

IP Telephony Elements

- Handset, headset, hands free
- Codec support (G.711, G.729, G.722)
- Jitter buffers and packet loss algorithms
- Acoustic echo cancellation
- QoS Support (VLAN tagging e.g.)
- SIP capable, compliant
- Security components –
 - Authentication, encryption
 - Password login
 - NAT support for static configs

Microsoft's Integrated Approach



Examples

Cisco 7975G & 7985G



Avaya 9650 & 1600 Series



Examples



Mitel 8662
& 5340



Microsoft's 8540 & 6812 (LG-Nortel)

Examples



Shoretel 565 IP Phone
& 265 IP Phone



Polycom IP 550 & 670 SIP Phones



Examples

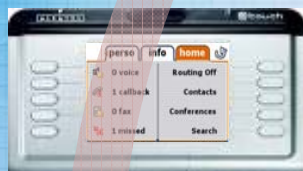
Customizable GUI



NEC DT750 w/color touch screen



Example



Alcatel IP Touch 4068 EE

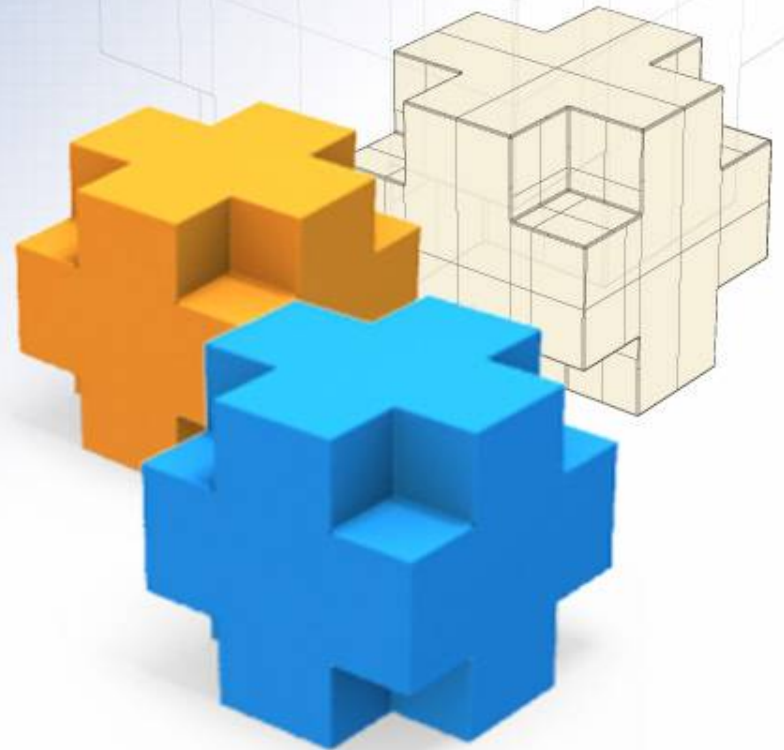
Alcatel/Lucent's UC Client

Example



BlackBerry MVS

Q&A





UC Integration/SIP Compliance

- How do you ensure phones' compatibility and integration with emerging Unified Communications platforms?
- Is SIP compliance enough?
- Is SIP compliance possible?
- What do vendors have to gain from open standards?
- What do vendors lose with open standards?
- What does history say as a benchmark for interoperability?
- Notes:
 - Most widely used for interoperability
 - Common set of agreed-to features, more to add
 - Vendor-specific extensions

Hardware Capabilities for Future Proofing

- Questions:
 - What hardware capabilities (Gigabit Ethernet cards, firmware upgradeability) do you require for future-proofing?
 - At what stage in the product lifecycle is the phone you are considering?
 - When was it announced?
 - When will it be manufacturer discontinued?
 - When is your enterprise environment to embrace (or already) GB Ethernet?
 - Are phones considered all firmware and software upgradeable?
 - Do you require pixel-based displays?
- PoE requirements for phones targeted?
 - UPS considerations?
 - Latest GREEN initiatives?



Price/Performance

- What is the price/performance of the latest phone sets?
- How does this compare to softphones?
- Price points need to be right in order to gain enterprise acceptance
- Are prices expect to hold, go down, even go up?
- Expected vendor discounting ranges
- 3rd party buying advantages, disadvantages
- What are categorically basic, admin, professional, exec?

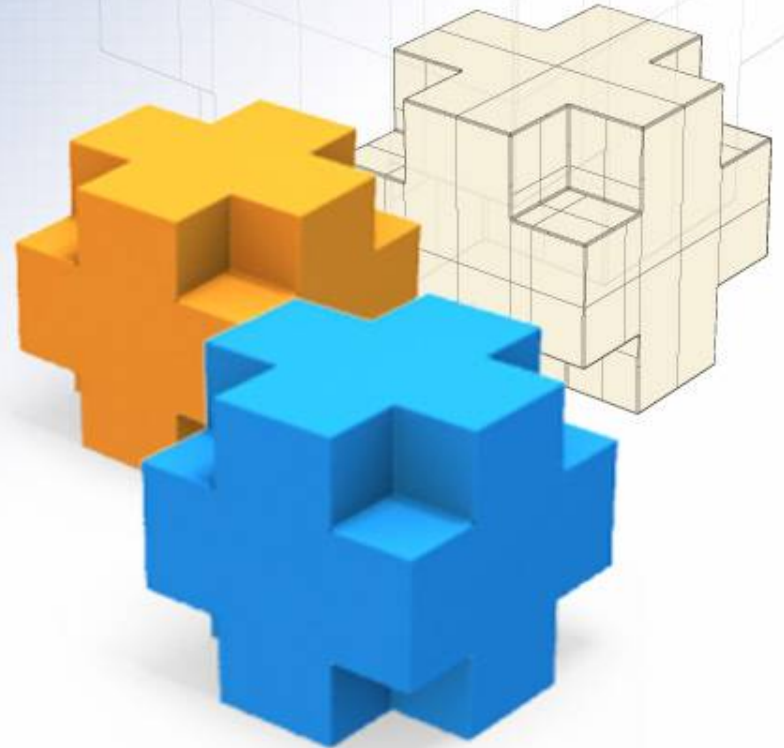
Life Cycle, Multi-Vendor Interoperability

- Expected Life Cycle of newest IP Telephones
 - Many new announcements from leading manufacturers
 - Latest features, applications offered
 - What are the life cycle expectations for hard phones?
 - What planned obsolescence do vendors have?
 - Firmware, software upgrade support
- What degree of multi-vendor interoperability is expected in the next-gen hard phones?
 - Interoperability with UC?
 - Planned-for interoperability with other manufacturers?
 - SIP compliance, expanded compliance?
 - What planned-for features, applications are under consideration?

Softphone Quality and Security

- What quality and security challenges need to be overcome before softphones go more mainstream?
 - Capability issues with MS Vista? MAC integration?
 - Best practices for quality calls over public net?
 - Home, Corporate environment, Hotels, other
 - Bandwidth, protocol(s), prioritization, set types, minimum requirements
 - What security areas are you addressing?
 - Authentication, encryption
 - Password login
 - NAT support for static configs
 - Other

Leaden's Top 10 IPT Predictions



Leaden's Top 10 IPT Predictions

10. Those who don't embrace an integrated VoIP and IP Telephony technology plan today *will* be left behind
9. Successful ROI models will include all areas for on-net voice, fax, audio conferencing, and videoconferencing technologies
8. Quality of Service is the key largest element in successful VoIP and IP Telephony implementations
 - This will be replaced shortly by mobility
7. Merging voice and data cultures will be the key challenge for successful CIOs and CTOs

Leaden's Top 10 IPT Predictions

6. Feature sets and convergence with Unified Communications will continue to expand, as well as provide interoperability
5. User demand/need for speed will always be “in front” of network availability, driving technology further, faster
4. Networks and applications will continue to get more complex – develop best practices models that embrace this
3. IPT will continue to be proprietary to some (even large) degree - it's OK (as long as you have a plan)



Leaden's Top 10 IPT Predictions

2. IPT and VoIP applications are in their infancy today, “we’re just getting started”

1. The most successful in the next five years include those who

- Have a road-map/plan to embrace IPT as a strategic business model
- Simplify users’ lives through enhanced and open applications
- Can integrate systems into a cohesive environment