

# N+1 VoIP Day

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## Agenda

- **Why IP Telephony?**
- **Which vendors/service providers did you assess, and what factors contributed to your ultimate vendor selection?**
- **What were the toughest problems you faced during implementation, and how did you overcome them?**
- **Describe your ROI.**
- **What are your next steps with your implementation? Will you be leveraging the infrastructure with new applications?**
- **What would you like vendors to focus on in the coming year?**

# Why IP Telephony?



- **Reduce Costs** – *IP infrastructure/sets less expensive than traditional digital set depending on deployment strategy*
- **Improve IS staff productivity** – *Tools to do more w/ less and concentrate on application development vs. reactive to network issues.*
- **Patient care staff retention** – *Provide technology to assist in augmenting Physicians and Nurses and build long-term commitment to partnering with EHS*
- **Implement “Future-proofing”** – *Attempting to maximize investment(s) and keep up-to-date with converged voice/data/video medical solutions going forward.*

- **Vendor Challenges - finding the right partners.**
  - *Select a hardware vendor who understands voice, data, and the convergence of the two.*
  - *Select the “right” VAR with both ability & willingness to invest time/effort in new technology.*
  - *Strong “End-to-End” Management Solution*
- **Evaluated Nortel, Cisco, Alcatel**
- **Selected Nortel on Voice and then Data for an end-to-end solution**
- **Selected Bellsouth as the Channel because of depth in our market**

- Real ROI Cost Savings vs. Traditional TDM – **Estimated savings of \$40 every time we deploy an IP phone vs. Digital set**
- No need to pull separate voice and data cabling – **Reduced the need for multiple infrastructures**
- Provides path for maintaining existing legacy devices – **Maximize investment – Present and Future**
- Simplified administration for moves, adds and changes – **Productivity improvement**
- Allows for working on applications – **Actual Next Slide**

- **Core LAN**
  - *PAC's bandwidth requirements*
  - *End-to-End Network Management*
- **Succession 1000**
  - *TDM replacement w/ full feature/functionality*
  - *Net 6 / Emergin*
- **Callpilot**
  - *Unified Messaging*
- **Wireless Applications**
  - *Integration with Succession 3 and wireless 802.11b IP Phones/PDA's*
  - *Mobile Medical Workstations*
  - *ICU patient ventilator*
  - *Mobile Pyxis Med-stations*



## TECHNOLOGY APPLICATION

### **Mobile Medical Workstation**

- **Components:** *i2050 Software Phone, 802.11a WLAN, Datavision/Prologix Mobile Medical Workstation*
- **Benefits:** *With Any time, Any where communications nurses can order tests, treatments, medications, etc. at patient's bedside, and enter new data on the spot. Improves patient care and nursing staff productivity.*

## ■ **Organizational Challenges**

- *Executive Sponsorship – Deploying Mission Critical “voice” on Network topologies in a software virus filled world...*
- *Team Buy In – **Organization wide.***

## ■ **Technical Challenges**

- *QSIG interoperability between PBX's.*
- *Sometimes necessary to convert all phones in an area at once for ease of transfers & call-pickup*
- *Simple Analog Devices still an issue due to cost*

## ■ **Network Challenges**

- *Network Audits*
- *G.729a/b versus g.711 codecs*

- ★ ***The true value of IP Telephony is not the telephony but the converged infrastructure for applications today and in the future.***

- **Evaluating MCS5100**
  - *Physician / Resident Communication Services*
  - *SIP - Affordable replacement for analog/TDM (?)*
  - *Multimedia Conferencing on Mobile Workstations with MCS5100 r3*
- **Evaluation of Succession 1000e**
  - *Campus/Geographical Redundancy on VoIP switch*
  - *SIP integration*
  - *Geographical based virtual trunks*
- **Wireless Applications**
  - *Wireless 2210/2211 Handsets - New 2230/2270 Solution*
  - *Multimedia Conferencing on Mobile Workstations with MCS5100 r3*
  - *Physician / Resident - Locator Service*
- **Network is positioned to enable new applications**
  - *No technological limits to what we can accomplish...*

- **Standardization across all IP Telephony platforms and services (SIP?)**
- **In-expensive analog to IP replacement device**
- **Service providers need to address virtual trunking to multiple locations for LD / network redundancy and diversity**
- **Development in the 5Ghz spectrum and mobile devices to access applications on 802.11a – allows free use of “Bluetooth” technology**
- **IVR support / handwriting recognition for MSAD/LDAP authentication on mobile devices**
- **In-between device versus Tablet P/C and PDA – needs processing power of tablet and smaller screen size than tablet.**

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**Questions ?**