

UCI Telephone System Evolution

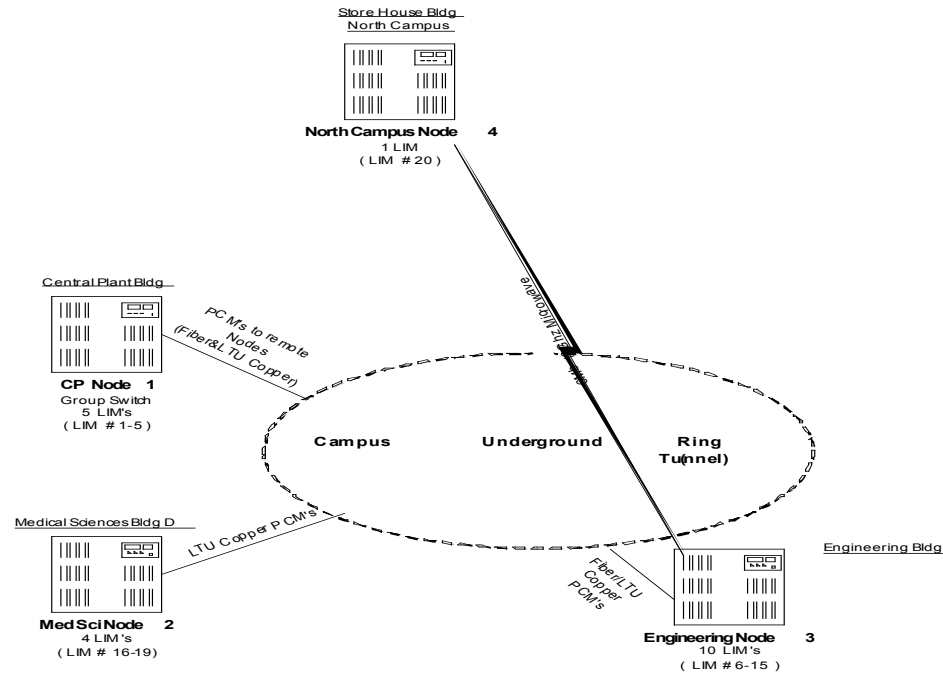
1985

- Replaced Centrex telephone system with Ericsson MD110 Private Branch Exchange (PBX)
- 2500 lines
- 4 Nodes/ “LIM sites”
 - Central Plant
 - Medical Sciences D
 - Engineering Tower
 - North Campus
- 20 phone port cabinets/Line interface modules (LIMs)

1985 Ericsson MD110 PBX replaces CU Centrex

2500 extensions

APPENDIX G: COMMUNICATIONS CABLING SYSTEM UCI TELEPHONE NETWORK 1986



1989

- Install campus-wide voice mail
- 1500 voice mail boxes
- Digital Sound/PulsePoint/Unisys

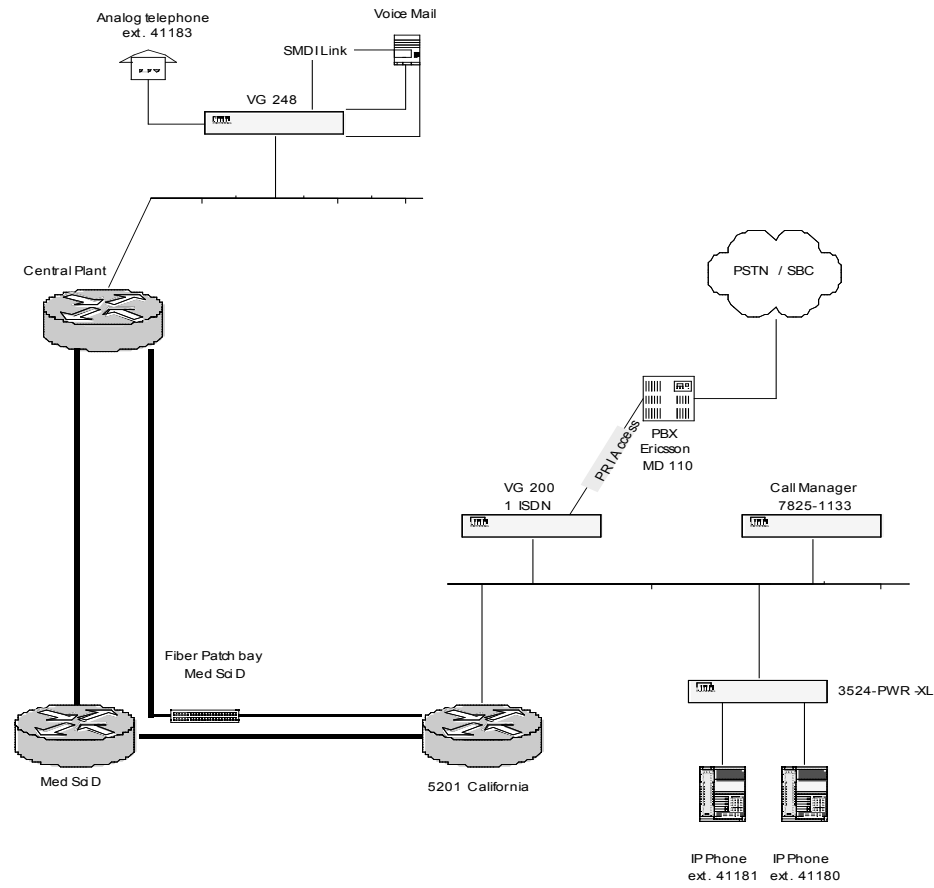
2002

- Begin Voice over IP (VoIP) testing
- 7 Cisco IP phones within NACS

Aug 2002 UCI Pilots Cisco VoIP

7 IP phones

UCI
Cisco VoIP Pilot



2003

- Upgrade PBX to software version BC11
 - Enabled use of Ericsson IP phones on PBX
 - Decided not to pursue Ericsson IP phones
 - 1st generation IP phones had limited capabilities
 - Waiting for future product enhancements
 - Upgrade cost was \$188K

2004

- Installed first production Cisco IP phones in Calit2 building
- 99% of the phones are IP
- The network and network power were designed for VOIP
- Cisco phones have been very reliable

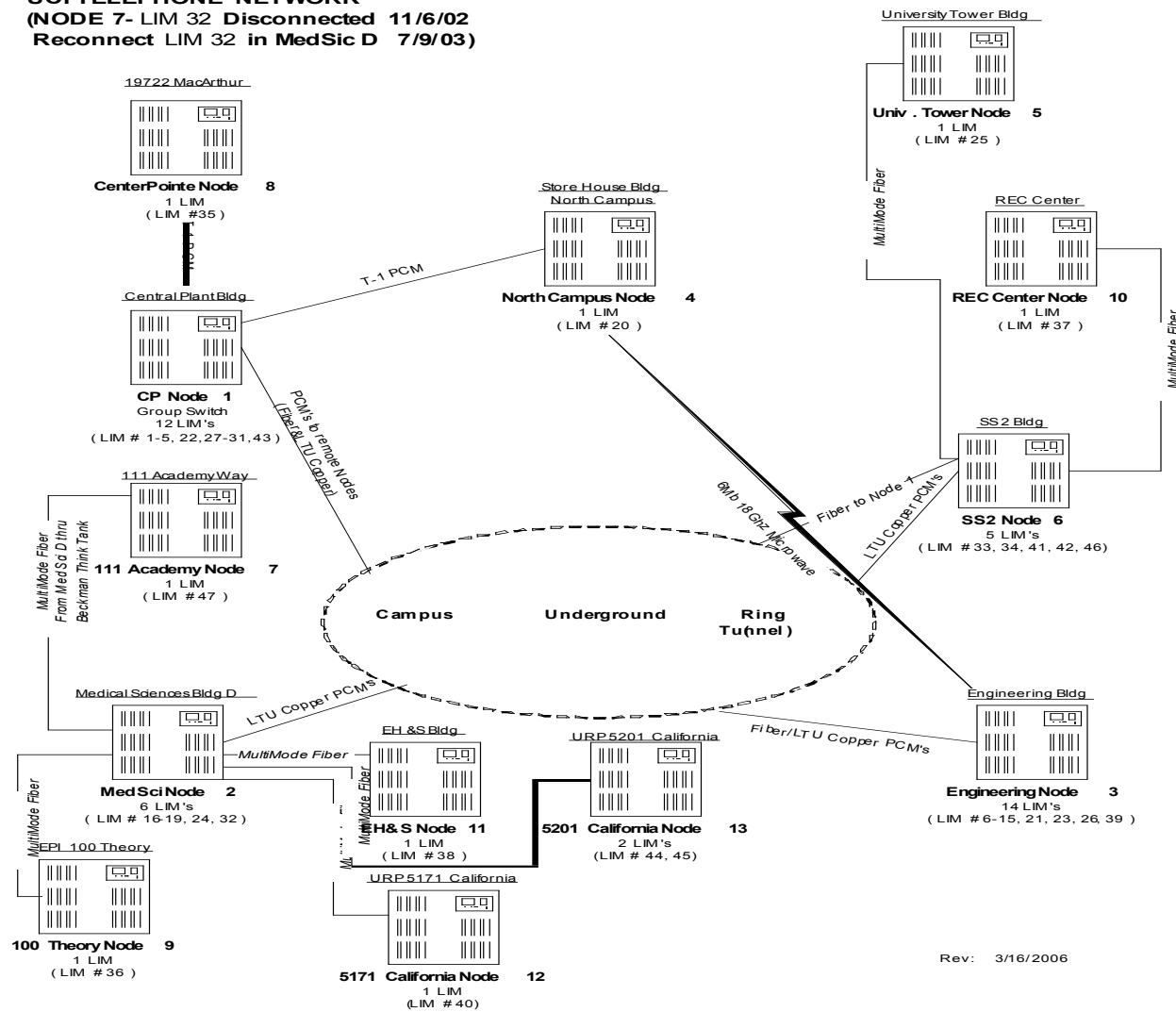
2006

- 9358 phone lines
- 5739 voice-mail boxes
- 13 LIM sites
- 47 LIMs
- Three buildings with 99% Cisco IP phones
 - Calit2 (November 2004)
 - Natural Sciences 2 (September 2005)
 - Bren Hall/CS3 (December 2006)
- 370 Cisco IP phones

2006 Current Configuration of PBX

9358 extensions

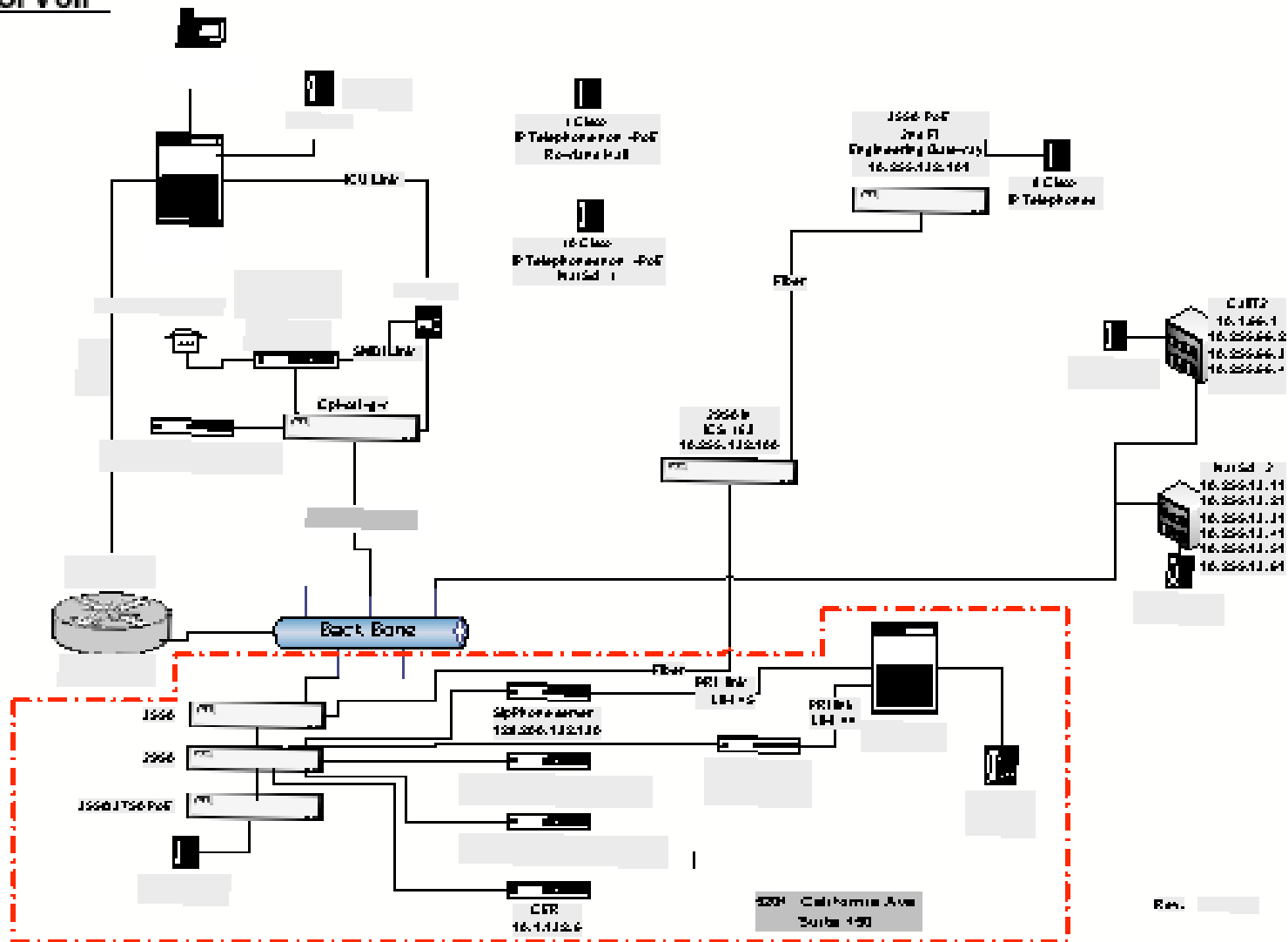
APPENDIX G: COMMUNICATIONS CABLING SYSTEM
UCI TELEPHONE NETWORK
(NODE 7- LIM 32 Disconnected 11/6/02
Reconnect LIM 32 in MedSic D 7/9/03)



2006 Current VoIP Configuration

311 IP phones

UCI VoIP



Moving Forward

- Voice-mail is 17 years old
 - Vendor issued “end of life” statement 2 years ago
 - Planning to replace system with newer technology and enhancements
 - Unified Messaging
 - Unified Communication
 - Cost to replace voice-mail is estimated at \$355k.
- PBX is 21 years old
 - Still reliable and functional for traditional phone service
 - Could continue to operate reliably 5-10 years+
 - Upgrades available to migrate PBX to a converged IP-based system
 - The next software upgrade cost estimated at \$150k
- VoIP Plans
 - Planning for migration from PBX to pure IP phone system
 - Extremely expensive network and power upgrades required
 - Planning to install IP phones in all new buildings
 - Cisco vs Ericsson vs other