

# I.D.E.A.L. OVERVIEW

## ***Audience:***

Institute of Electrical and Electronics Engineers



**November 14<sup>th</sup> - 19<sup>th</sup>, 2004**  
**San Antonio, TX**

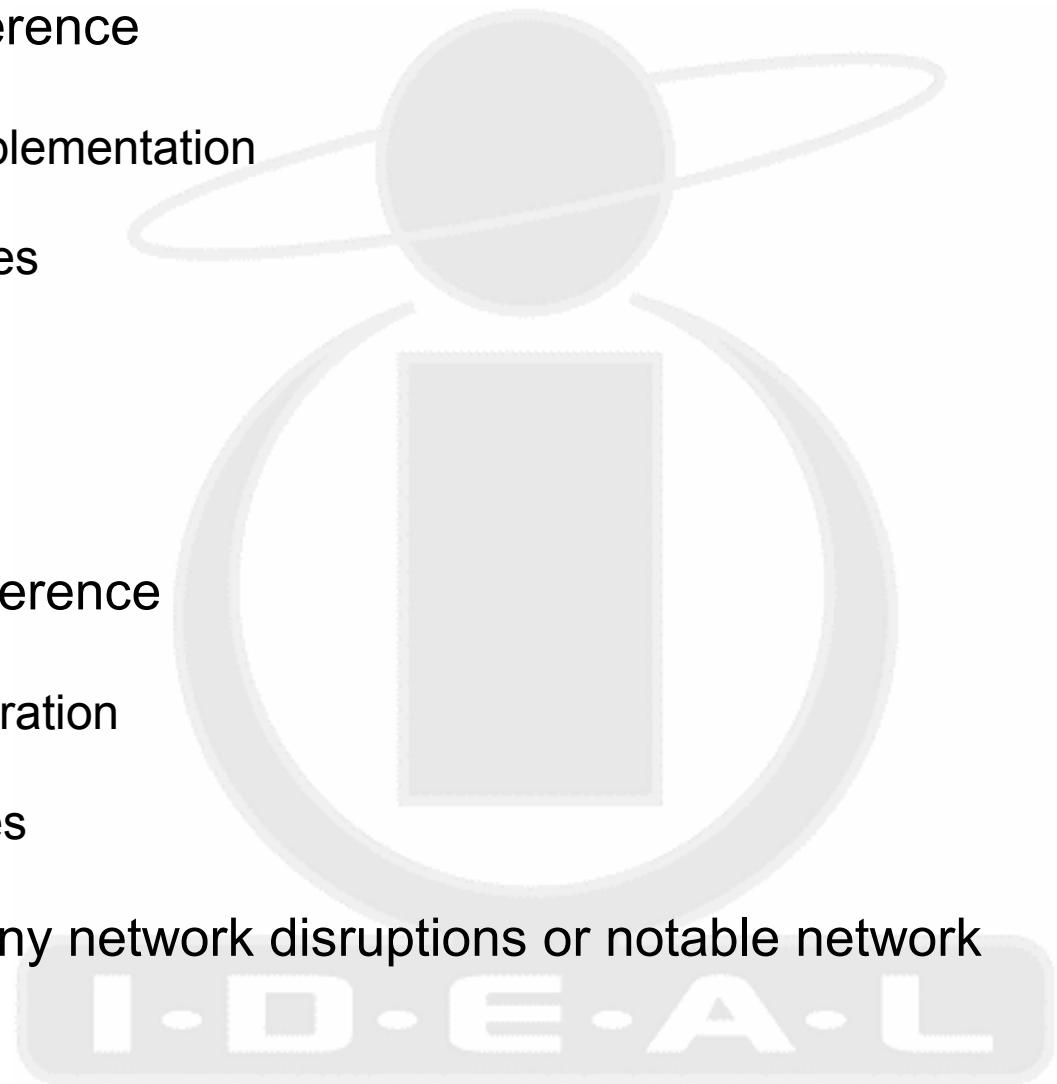
## ***Prepared by:***

**Michael P. Rhing,**  
**Systems Administrator**  
**I.D.E.A.L. Technology Corporation**



# NETWORK PLAN

- Provide network support for conference
  - Network topology design and implementation
  - Management of network resources
  - Facilitate Internet access
  - File and print server access
- Provide end user support for conference
  - Wireless and wired client configuration
  - Diagnose and resolve VPN issues
- Communicate with all members any network disruptions or notable network issues

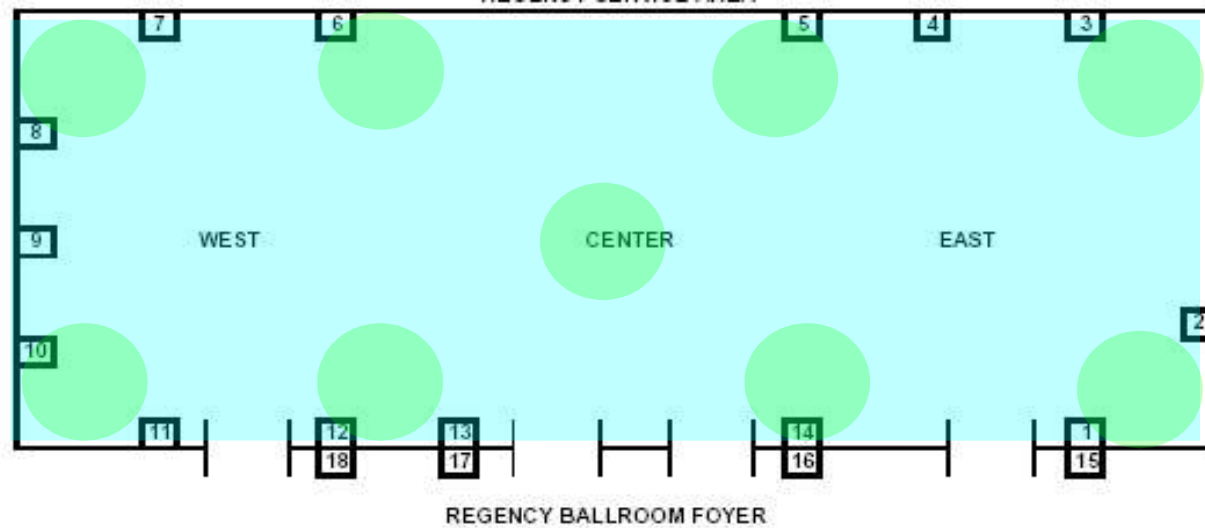
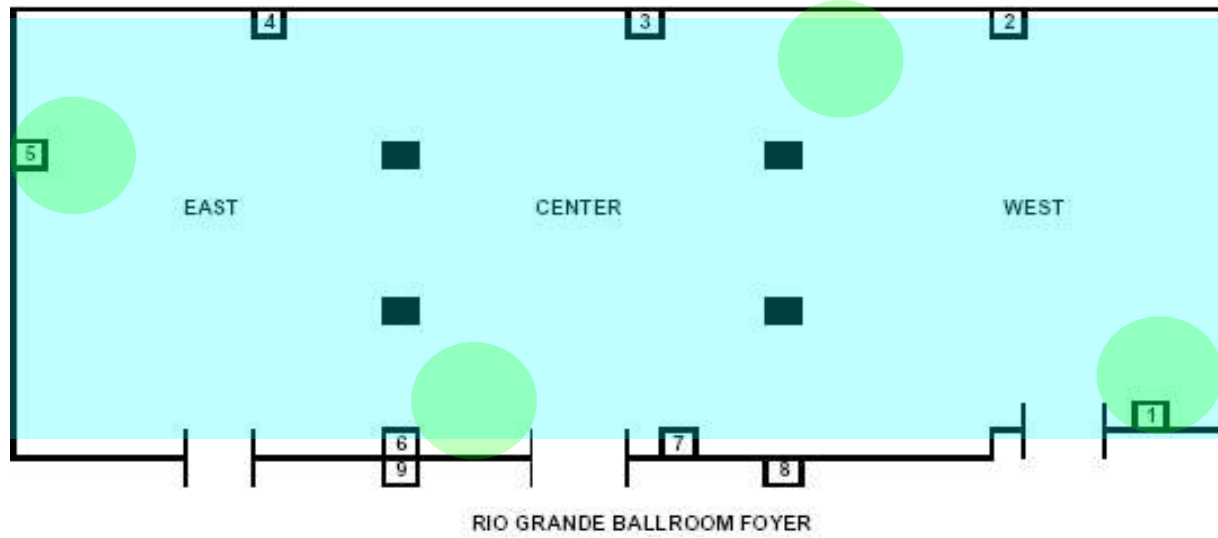


# NETWORK AVAILABILITY

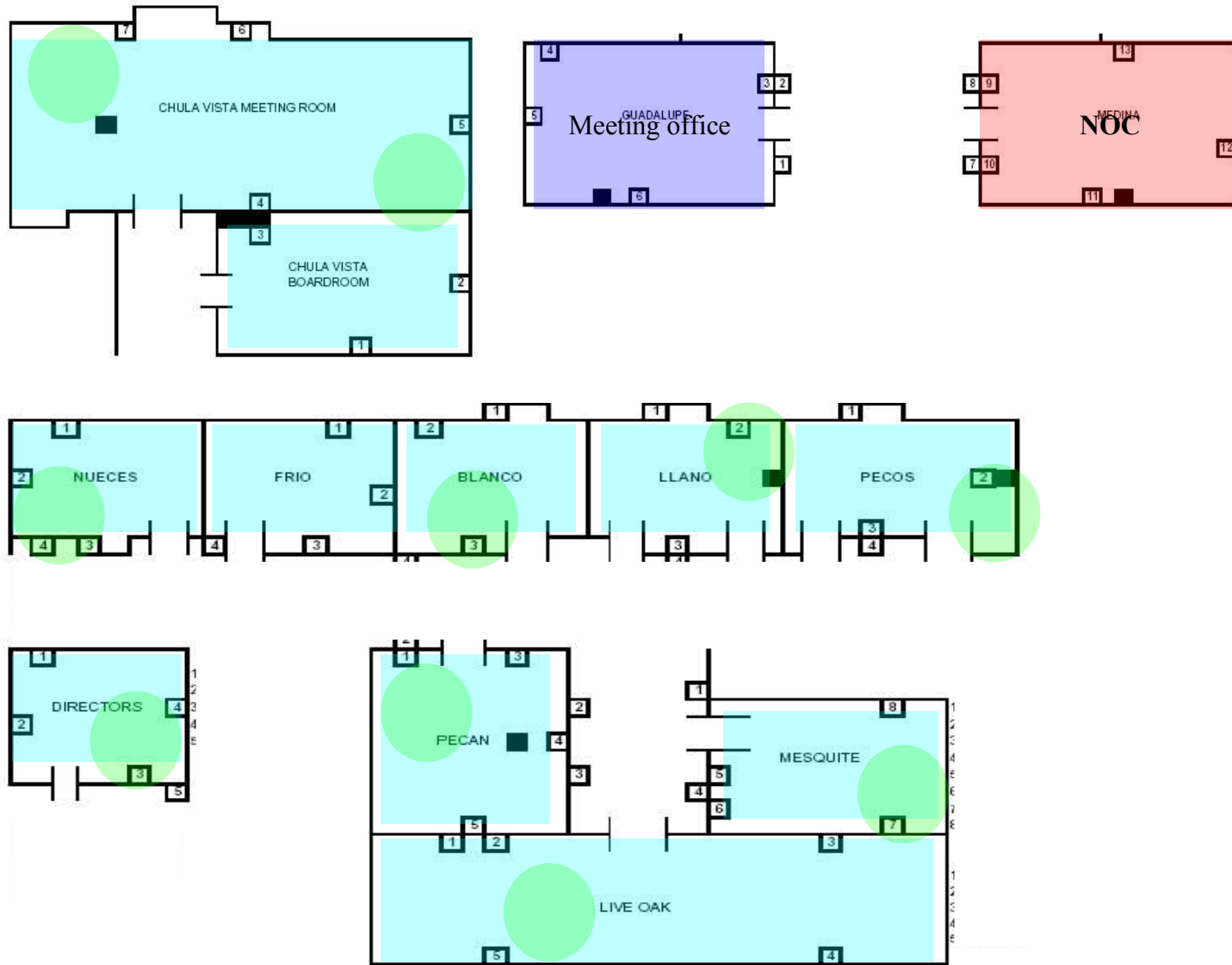
- Equipment inventory and initial NOC configuration by 5:00pm Saturday
- Hyatt Regency hotel Internet access available by 9:30am Sunday
- All facility links up and tested by 6:00pm Sunday
- Deployment of access points and all services completed by 11:30pm Sunday
- All services were active and available on time for conference sessions



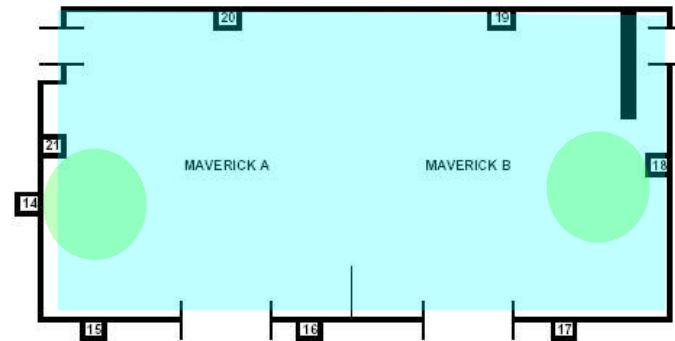
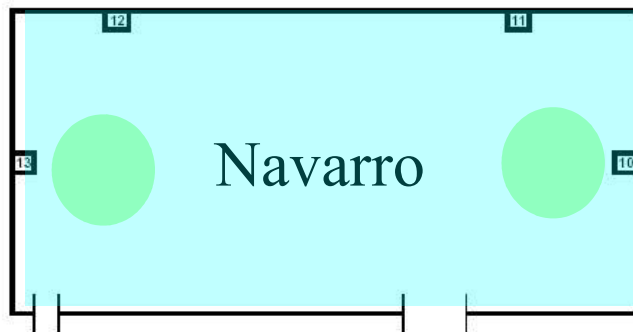
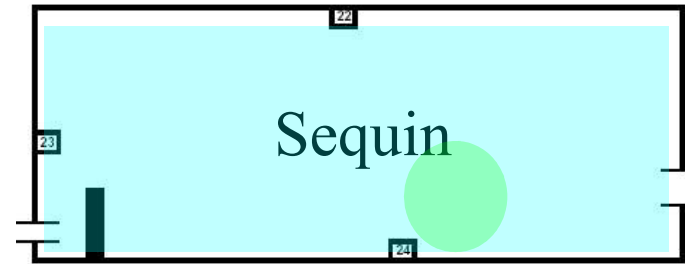
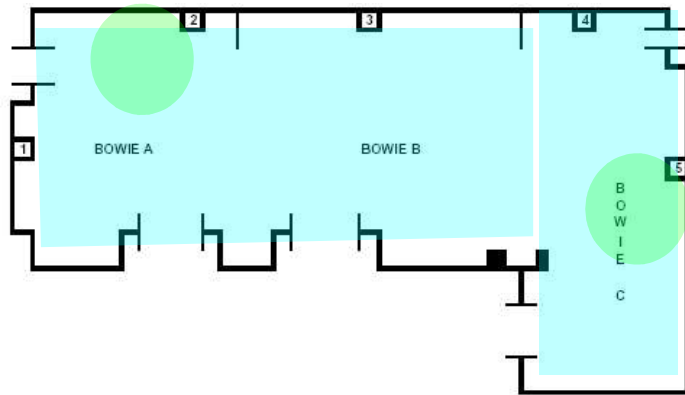
# HYATT REGENCY I



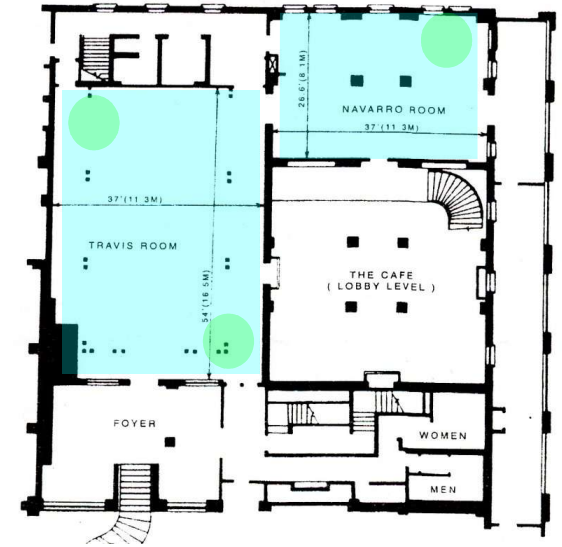
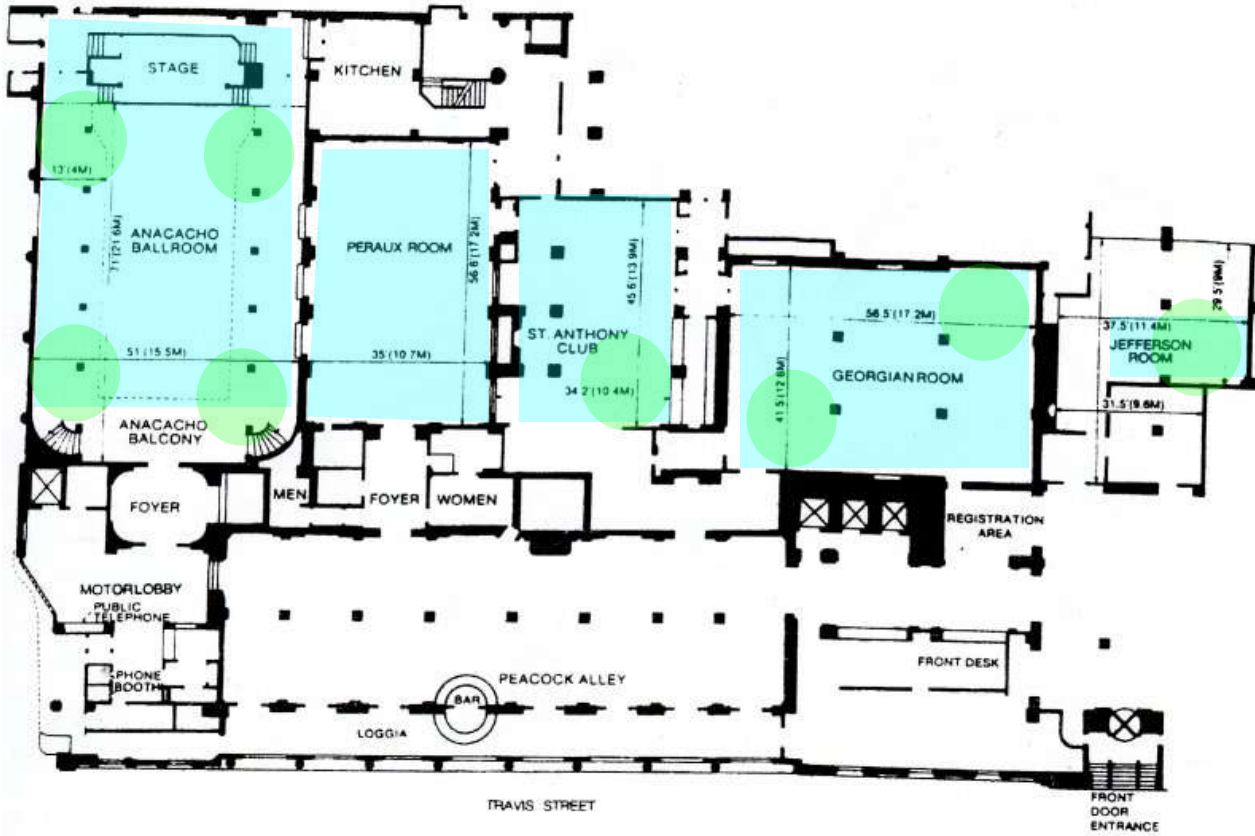
# HYATT REGENCY I (CONT)



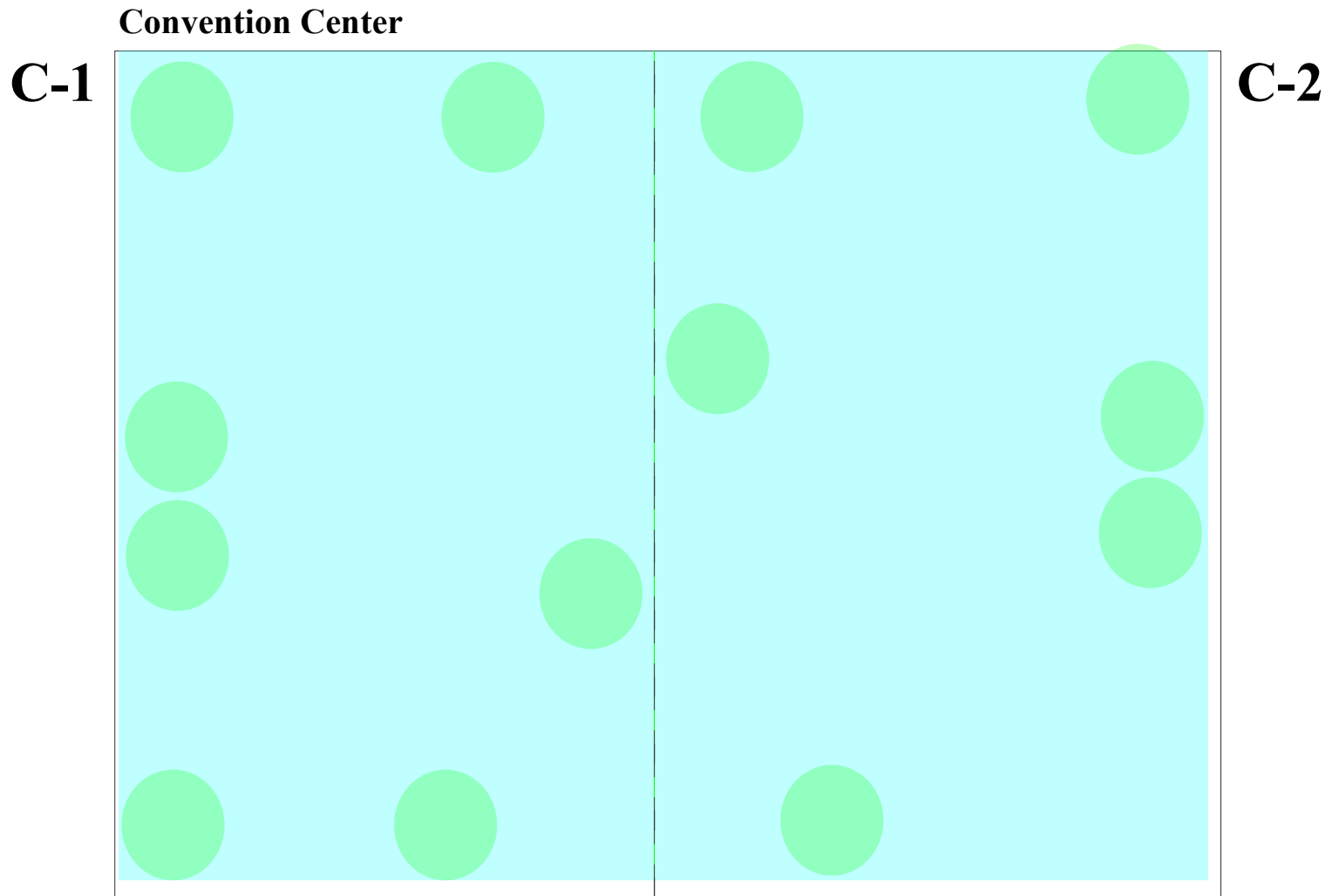
# HYATT REGENCY II



# WYNDAM ST. ANTHONY

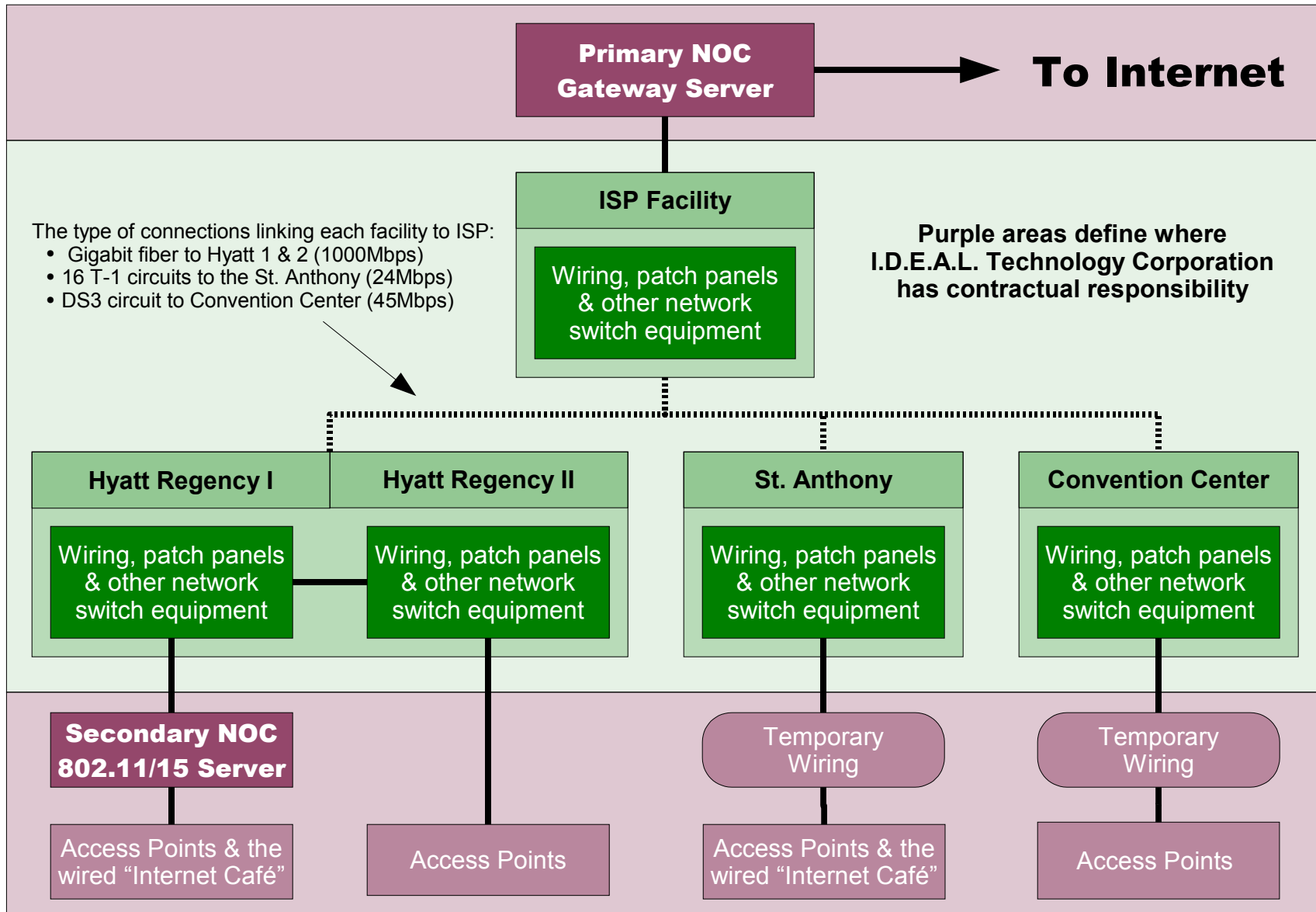


# SA CONVENTION CENTER





# NETWORK BLOCK DIAGRAM



# NETWORK STATISTICS

(Statistics accurate as of 12:00pm 11-19-2004)

- Unique devices requesting IP address: 2355
- Total HTTP requests served: 19,093,836
- Total Gigabytes of HTTP data delivered: 72.7GB
- Max simultaneous Masq sessions: 61K (15K avg)
- Max simultaneous IPSEC tunnels: 207 (73 avg)
- Max simultaneous PPTP tunnels: 520 (223 avg)
- Max Internet access utilization: 25.71 Mb/sec (22.6Mb/sec)
- Total SMTP Email Deliveries: 36,024

**This conference  
broke all previous  
IEEE network  
performance records**

I-D-E-A-L

# NETWORK CLIENTS

|                                   |                                 |                                  |                             |
|-----------------------------------|---------------------------------|----------------------------------|-----------------------------|
| 29 3com Corporation               | 189 Cisco Systems, Inc.         | 1 Kingmax Technology, Inc.       | 2 Sharp Corporation         |
| 5 Abocom Systems, Inc.            | 2 Cnet Technology Inc.          | 1 Lite-On Communications, Inc.   | 1 Siemens Ag                |
| 2 Acer Incorporated               | 8 Compal Electronics, Inc.      | 9 Lucent Technologies            | 17 SMC Networks, Inc.       |
| 27 Actiontec Electronics, Inc.    | 28 Compaq Computer Corp         | 35 Marvell Semiconductor, Inc.   | 14 Solomon Extreme Intl     |
| 187 Agere Systems                 | 291 Corega K.K.                 | 1 Matsushita Electric Industrial | 21 Sony Corporation Ltd.    |
| 1 Airespace, Inc.                 | 2 Cybertan Technology, Inc.     | 8 Megahertz Corporation          | 5 Sychip Inc.               |
| 5 Airgo Networks, Inc.            | 53 D-Link Corporation           | 11 Melco Inc.                    | 3 Symbol Technologies, Inc. |
| 33 Aironet Wireless Communication | 37 Dell Computer Corporation    | 2 Micro-Star International Co.   | 1 Systemonic Ag             |
| 1 Allied Telesis, K.K.            | 7 Delta Networks, Inc.          | 6 Microsoft Corporation          | 1 Test-Um Inc.              |
| 1 Alps Electric Co., Ltd.         | 2 Edimax Technology Co., Ltd.   | 1 MITAC International Corp.      | 84 The Linksys Group, Inc.  |
| 21 Ambit Microsystems Corp.       | 2 Elecom Co., Ltd.              | 1 Module Department              | 12 Toshiba Corporation      |
| 55 Ambit Microsystems Corporation | 4 Enterasys Networks            | 1 Motorola Bcs                   | 1 Twinhead Corporation      |
| 9 Ani Communications Inc.         | 4 Epigram, Inc.                 | 4 NEC Corporation                | 2 U.S. Robotics, Inc.       |
| 36 Apple Computer, Inc.           | 1 Ericsson Group                | 72 Netgear, Inc.                 | 10 USI                      |
| 1 Arima Computer Corp.            | 4 Farallon Computing/Netopia    | 8 Nokia Wireless                 | 1 Victor Company            |
| 73 Askey Computer Corp.           | 1 Forte Networks                | 13 Nortel Networks               | 2 VMware, Inc.              |
| 5 Asustek Computer Inc.           | 17 Fujitsu Limited              | 2 Palm Inc.                      | 2 Wistron Corp.             |
| 7 Atheros Communications, Inc.    | 101 Gemtek Technology Co., Ltd. | 41 Philips Components            | 5 Wistron Neweb Corp.       |
| 8 Belkin Components               | 2 Giga Fast E. Ltd.             | 1 Planet Communications, Inc.    | 1 Woonsang Telecom, Inc.    |
| 3 Belkin Corporation              | 5 Global Sun Technology, Inc.   | 2 IBM Japan Co, Ltd              | 26 Ww Pcba Test             |
| 1 Benq Corporation                | 26 Hewlett-Packard Company      | 5 Private                        | 41 Xircom                   |
| 1 Billionton Systems, Inc.        | 1 Hob Electronic Gmbh & Co.     | 25 Proxim, Inc.                  | 5 Z-Com, Inc.               |
| 2 Broadcom Corporation            | 4 I-O Data Device, Inc.         | 1 Quanta Computer, Inc.          | 1 Zyxel Communication       |
| 2 Bromax Communications, Ltd.     | 43 IBM Corporation              | 2 Realtek Semiconductor Corp.    | 1 0C:0C:0C                  |
| 1 Cabletron - Yago Systems, Inc.  | 2 Icom Inc.                     | 1 Redcreek Communications        | 1 63:27:24                  |
| 2 Cameo Communications, Inc.      | 441 Intel Corporation           | 38 Samsung Electro-Mechanics     |                             |
| 2 Card Access, Inc.               | 4 Intersil Corp.                | 2 Senao International Co., Ltd.  | 2355 Total                  |

# NETWORK ISSUES

- An outage occurred on November 16, 2004 at 8:45AM for 20 minutes. This was due to a bug in the network card driver on the Hubble server and affected all facility sites. This issue will be corrected with a kernel upgrade during the equipment maintenance period.
- An outage occurred on November 16, 2004 at 9:55AM for 25 minutes. This was due to a switch locking up and only affected the St. Anthony hotel.
- The Hyatt Regency hotel experienced degraded 802.11b wireless network performance due to the presence of a video streaming demonstration utilizing 802.11g. This issue was escalated to the LMSC executive committee and was resolved by Wednesday.
- A total of 109 disrupted events were detected on the network resulting in the removal of 22 client systems from the network.

# I.D.E.A.L. CONTACT INFO

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