



Massachusetts Institute of Technology

Internet2 Member Meeting

SIP.edu Initiative

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October 14, 2003

MIT Implementation

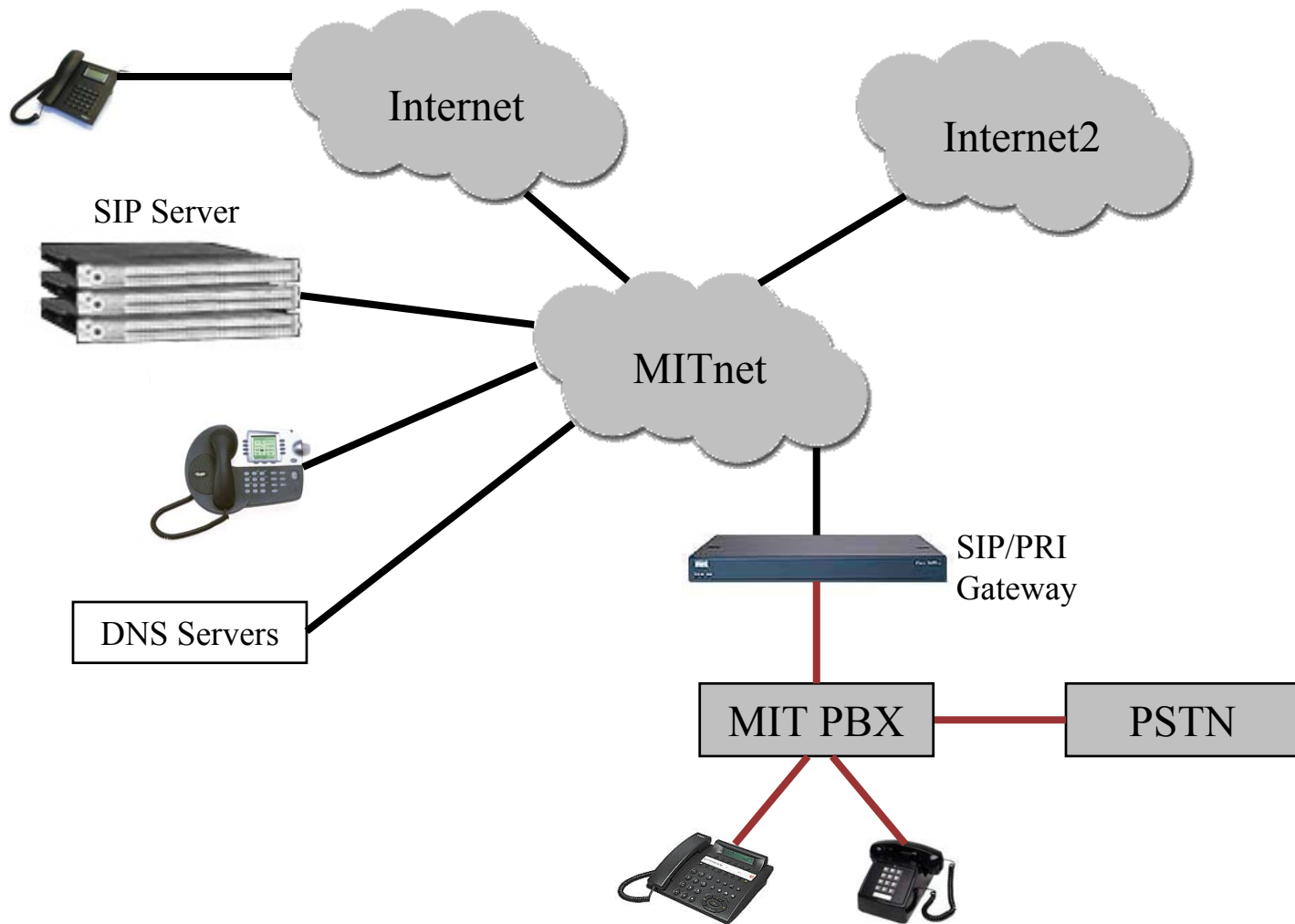
SIP@mit.edu Implementation

- Pingtel SIPxchange SIP proxy server
 - SIP registrar server
 - SIP media server (voice mail)
- Cisco 26XX SIP > ISDN PRI gateway
 - Expandable to two PRIs – 46 simultaneous calls
- Lucent 5ESS PBX
 - Existing switch
 - Approximately 20,000 ISDN and analog phones
- Approximately 12,000 electronic mail address mapped

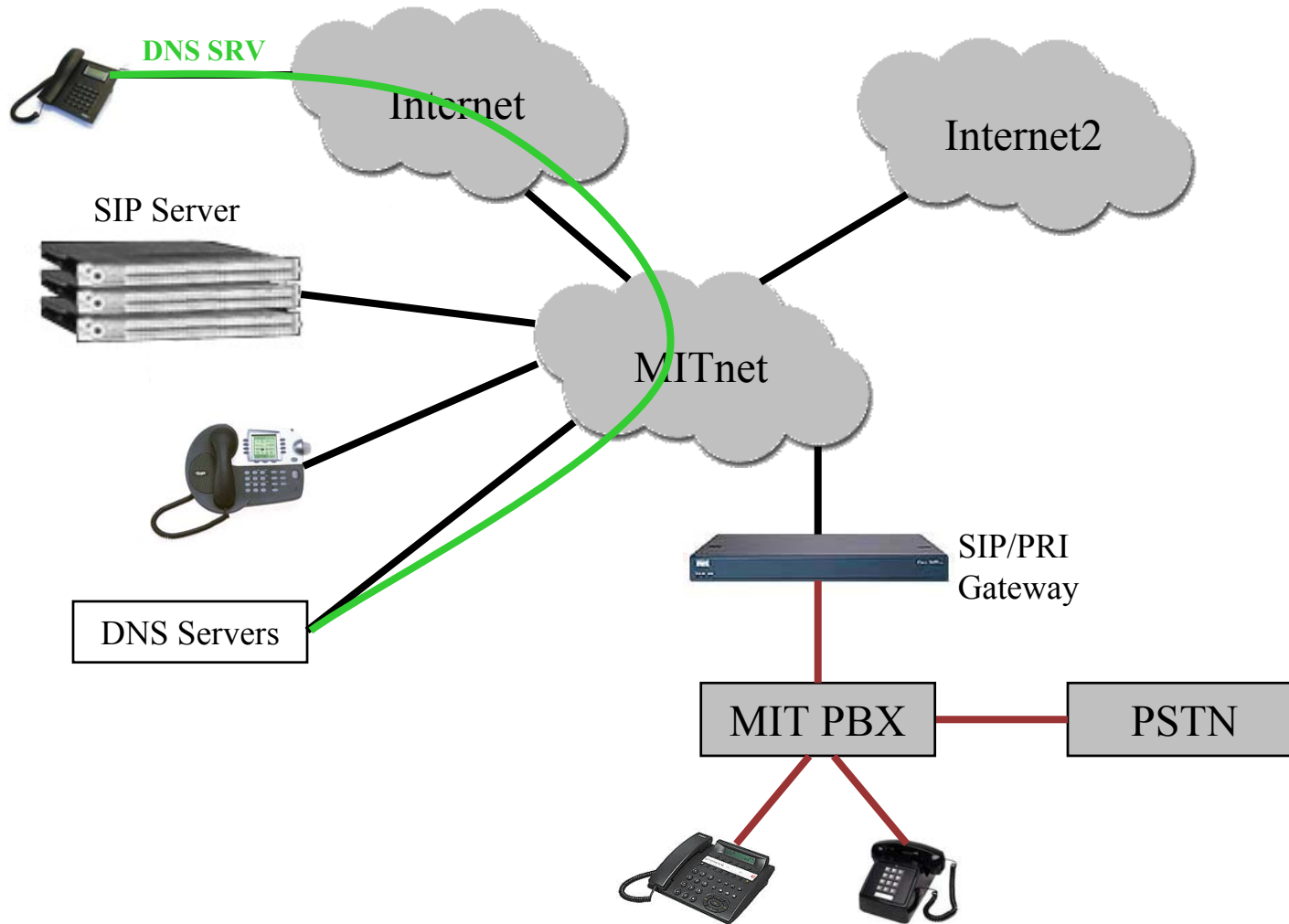
SIP@mit.edu Call Flow

- SIP DNS lookup for MIT.EDU points to SIP proxy
- SIP proxy checks for aliases to local SIP accounts
 - Routes calls to SIP account – eg. 6172521232@mit.edu
- If no local account SIP proxy checks external alias file
 - Maps call to PBX extension – eg. 37669@mit.edu
- SIP proxy checks dial plan and routes to PBX gateway
- PBX rings phone

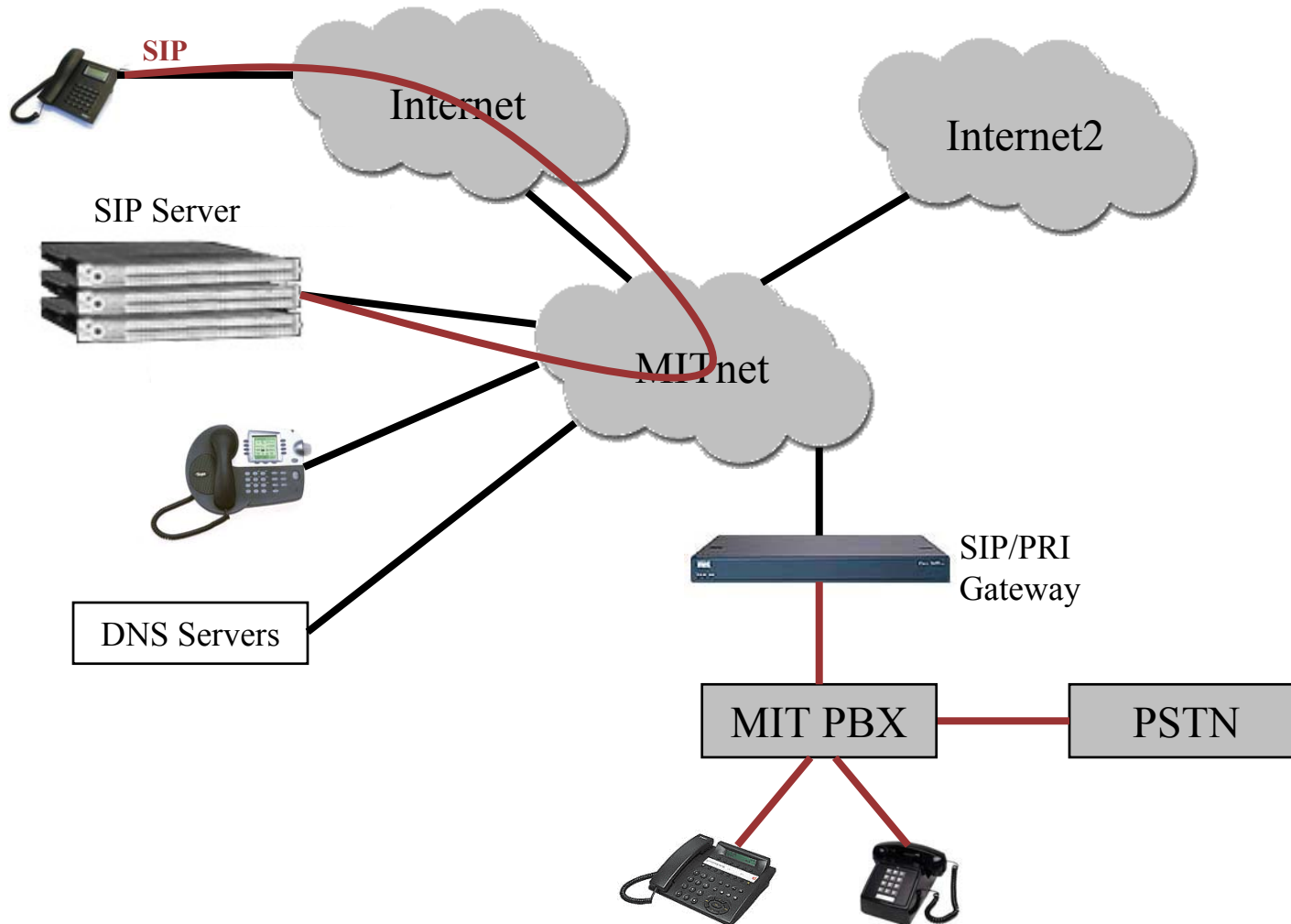
SIP@mit.edu Configuration



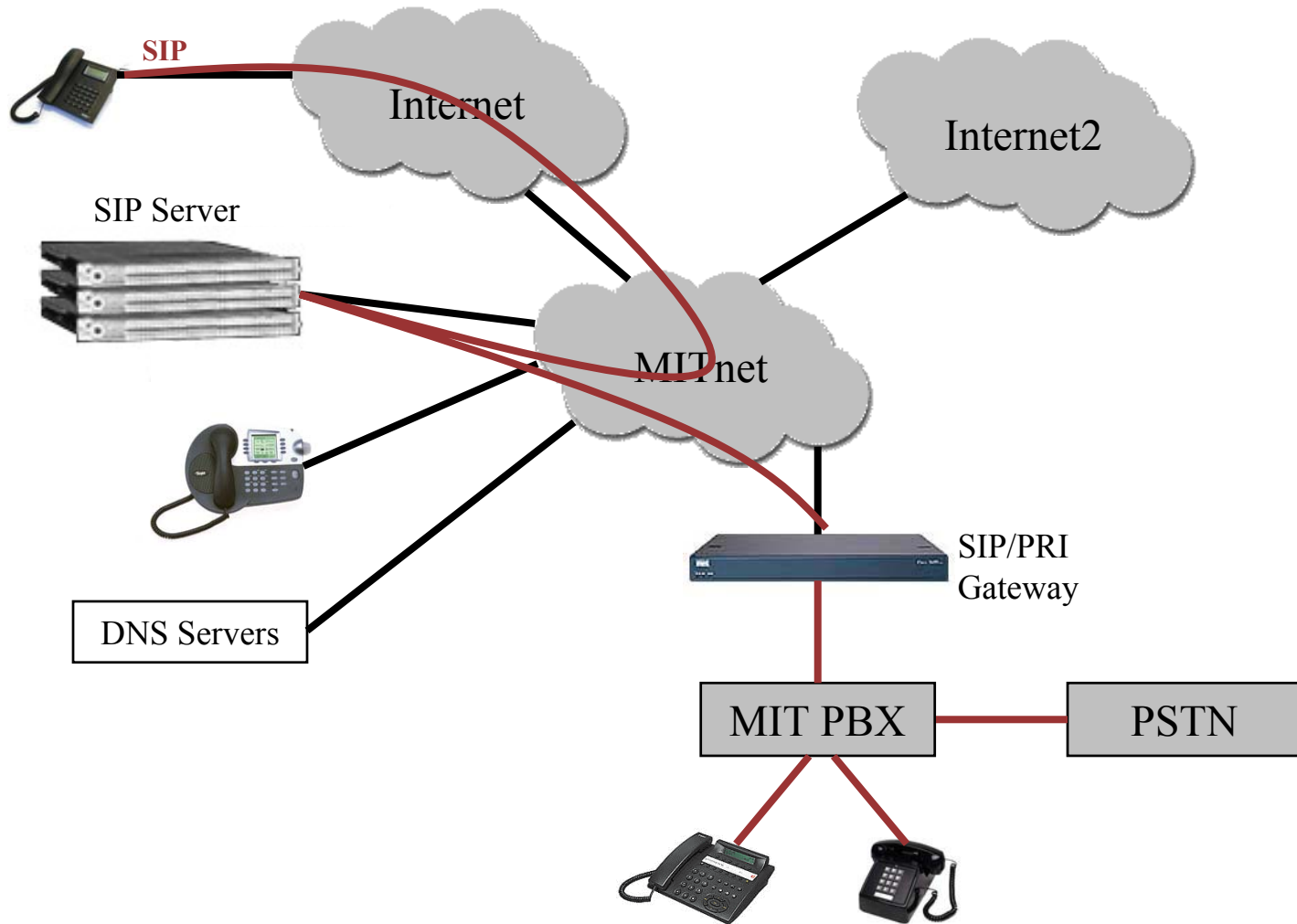
SIP@mit.edu Configuration



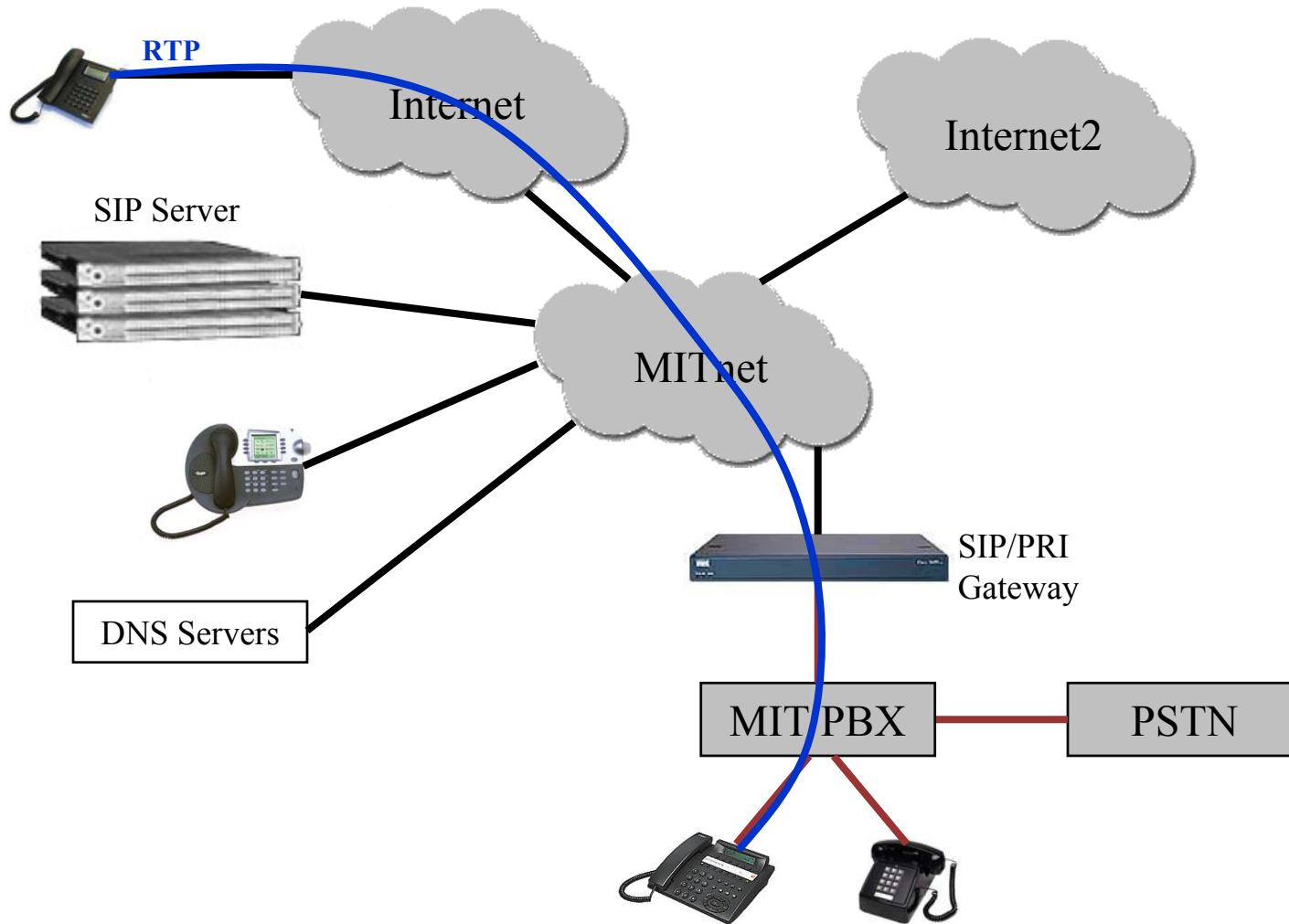
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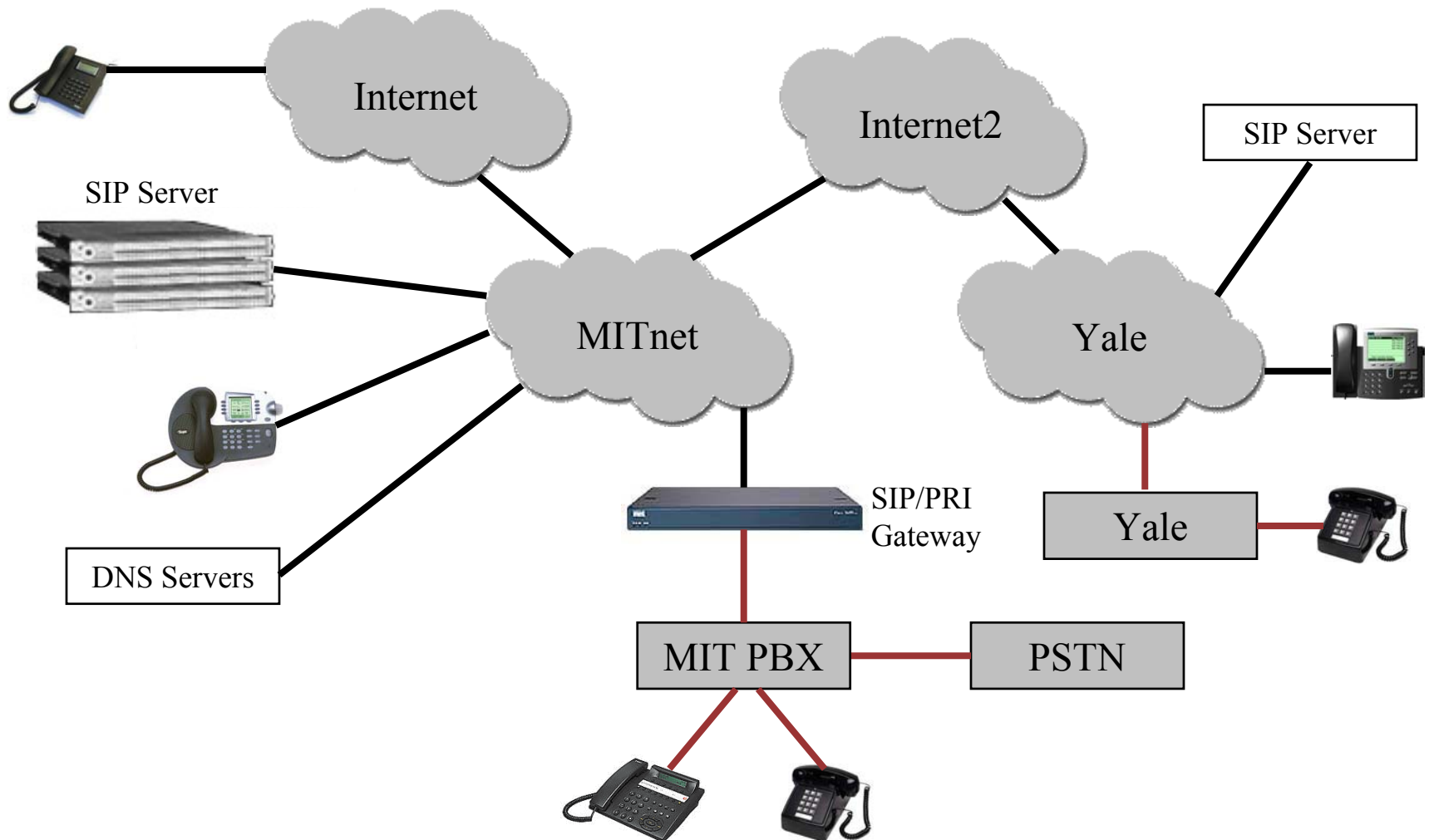
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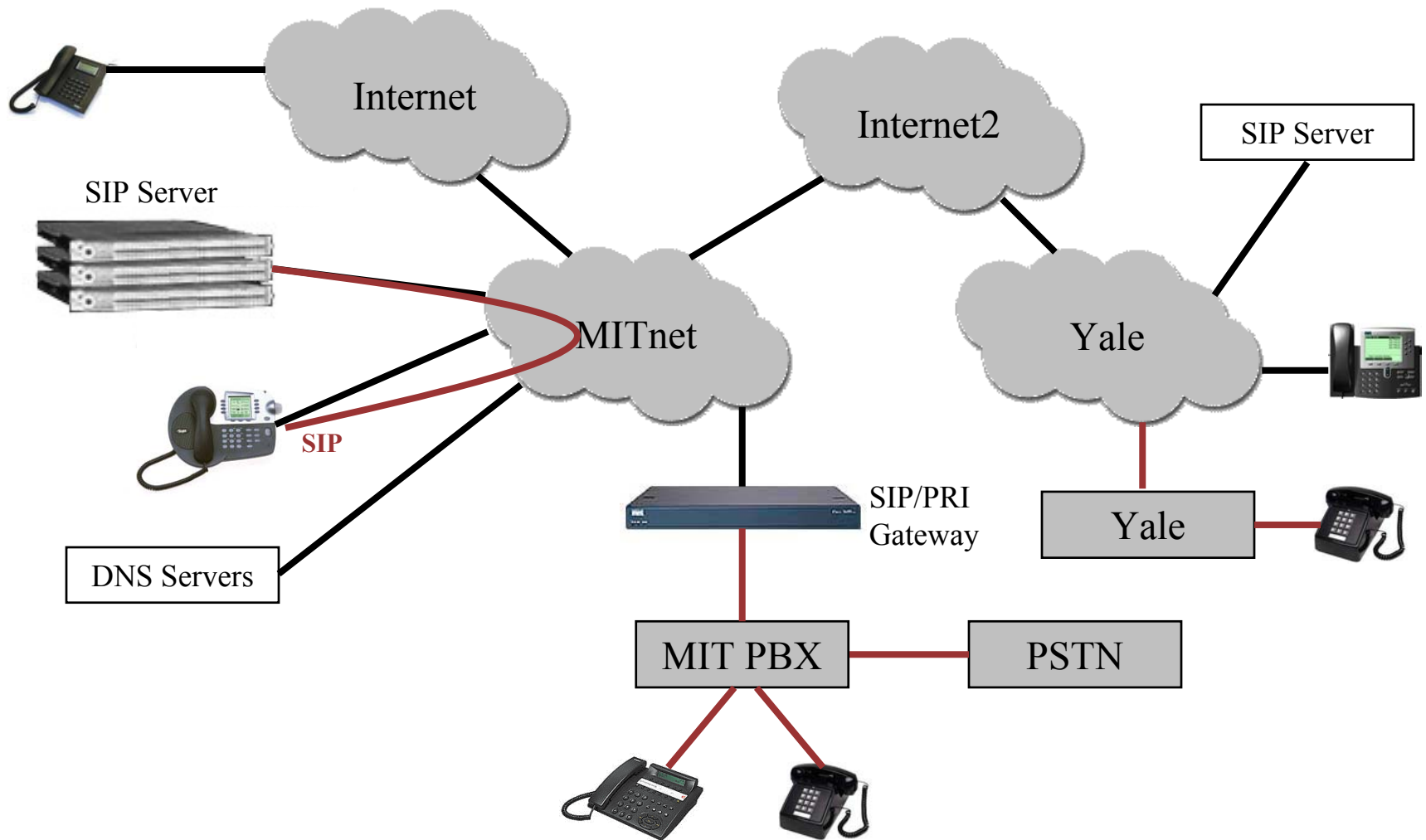
SIP@mit.edu Configuration



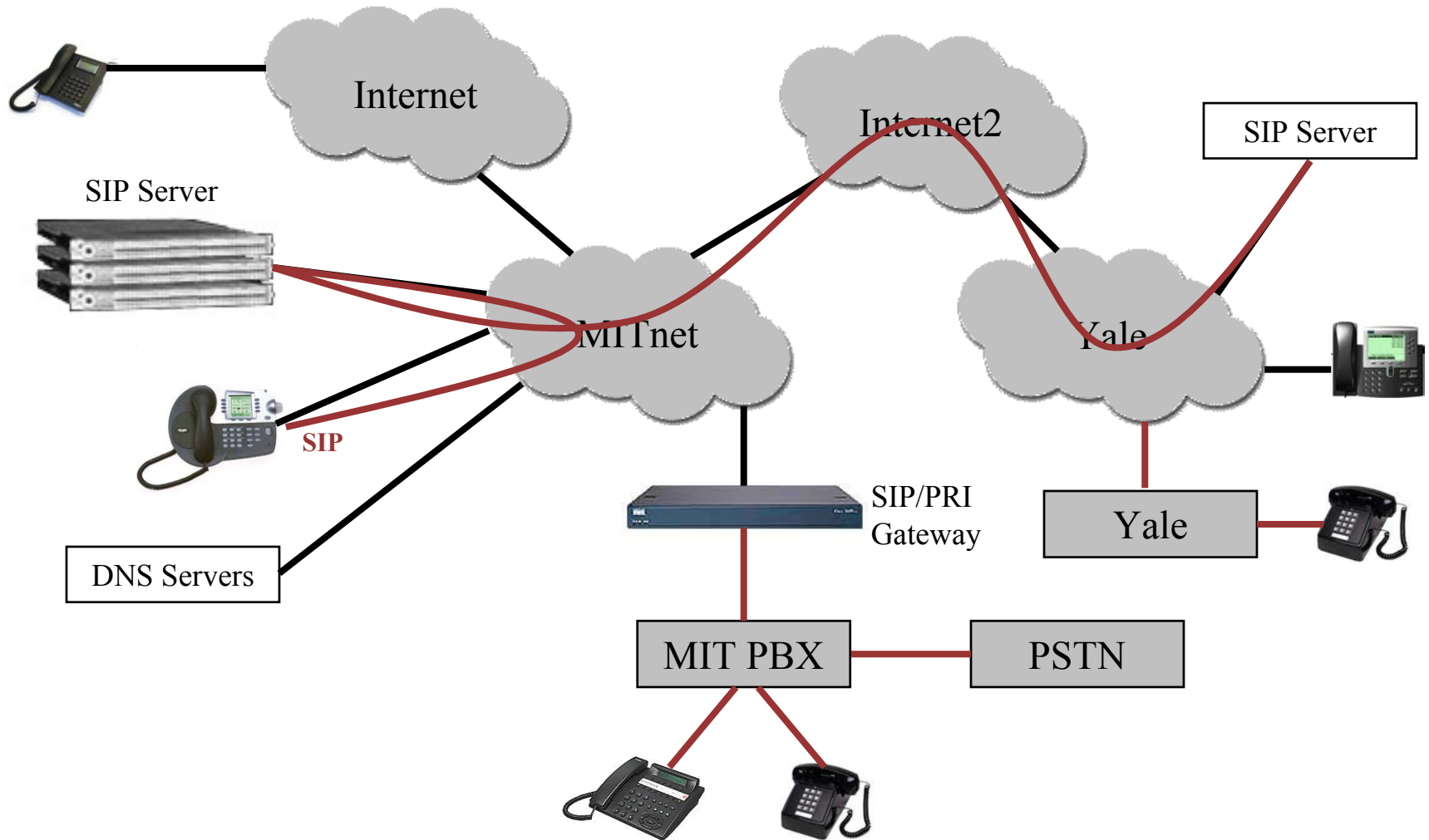
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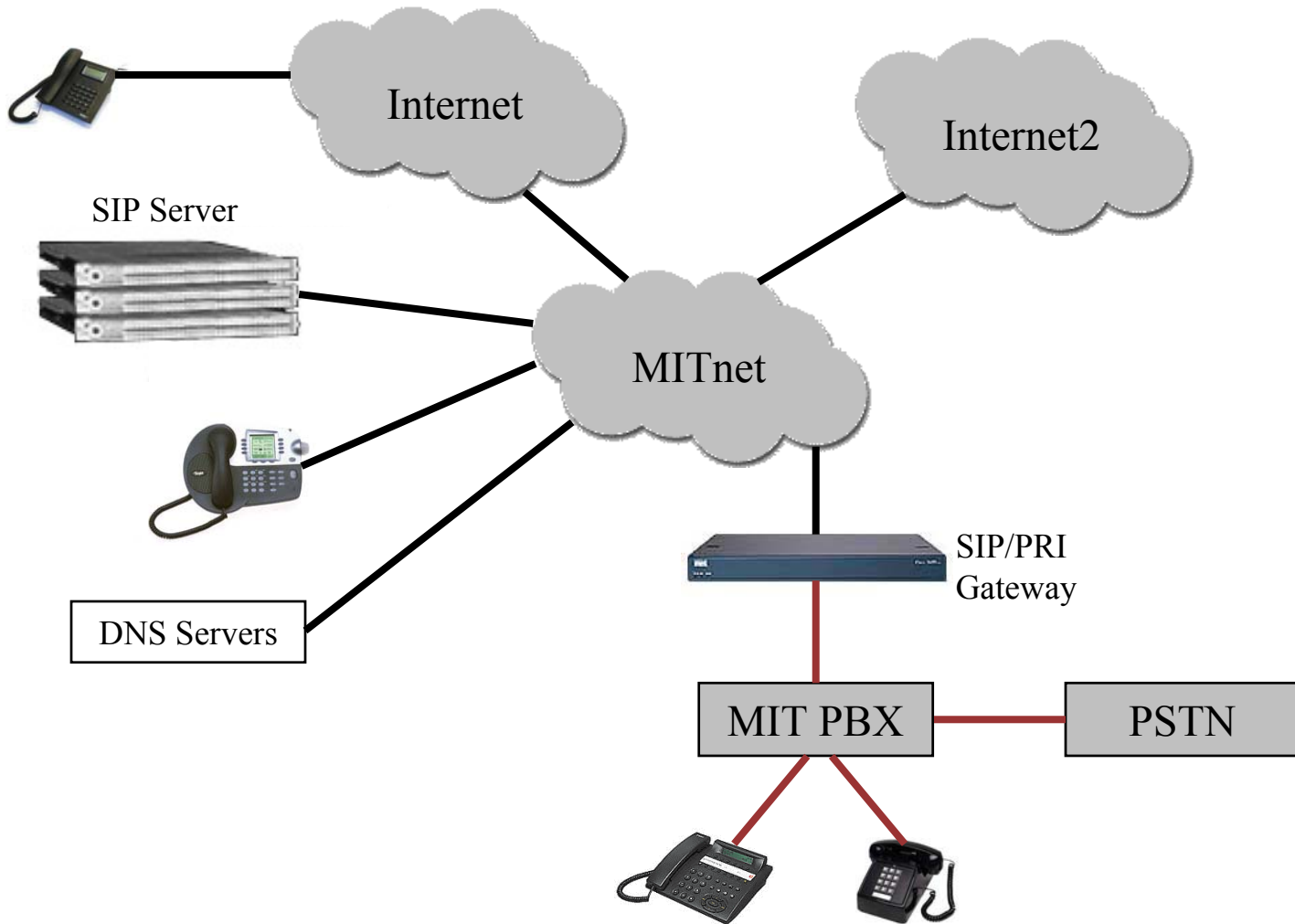
SIP@mit.edu Configuration



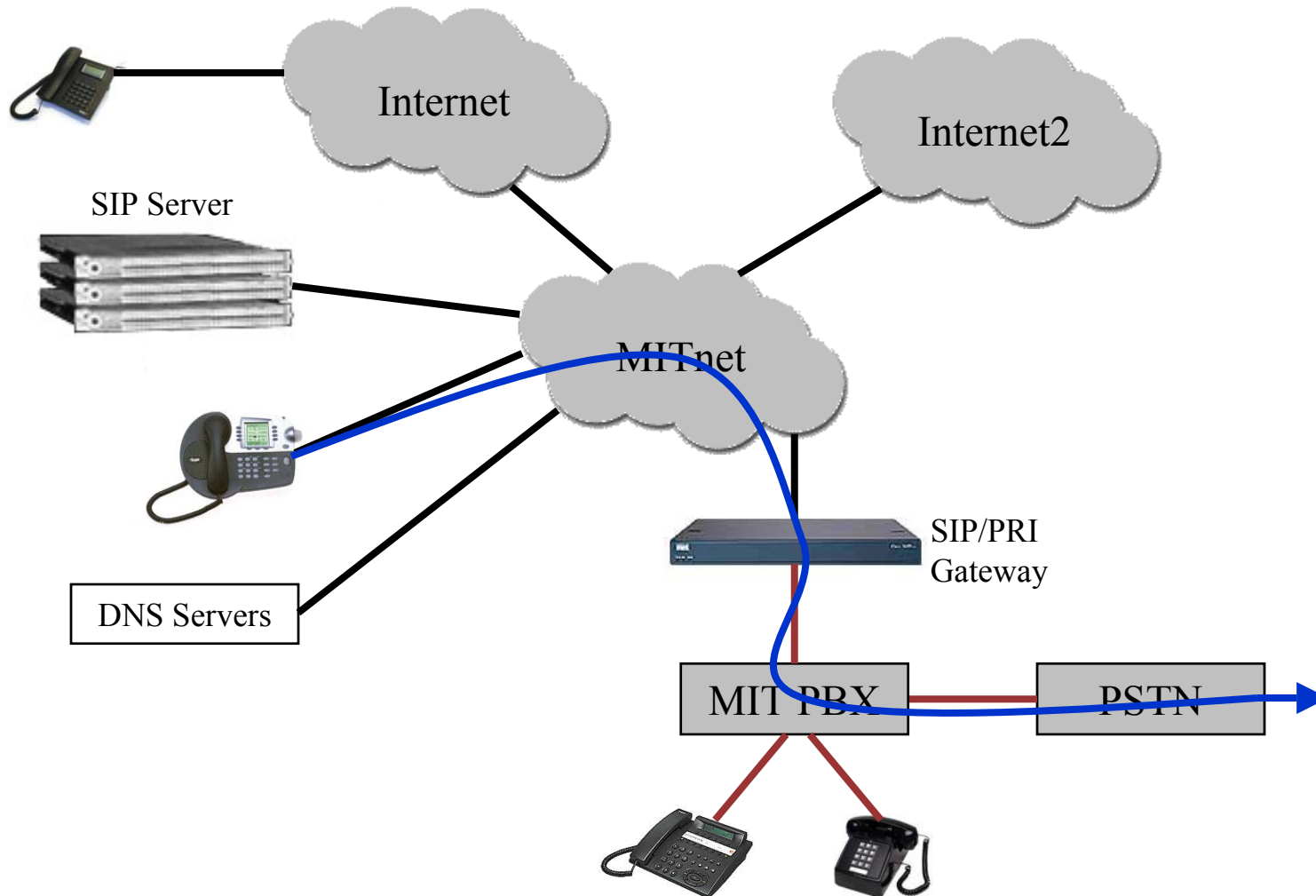
SIP@mit.edu Configuration



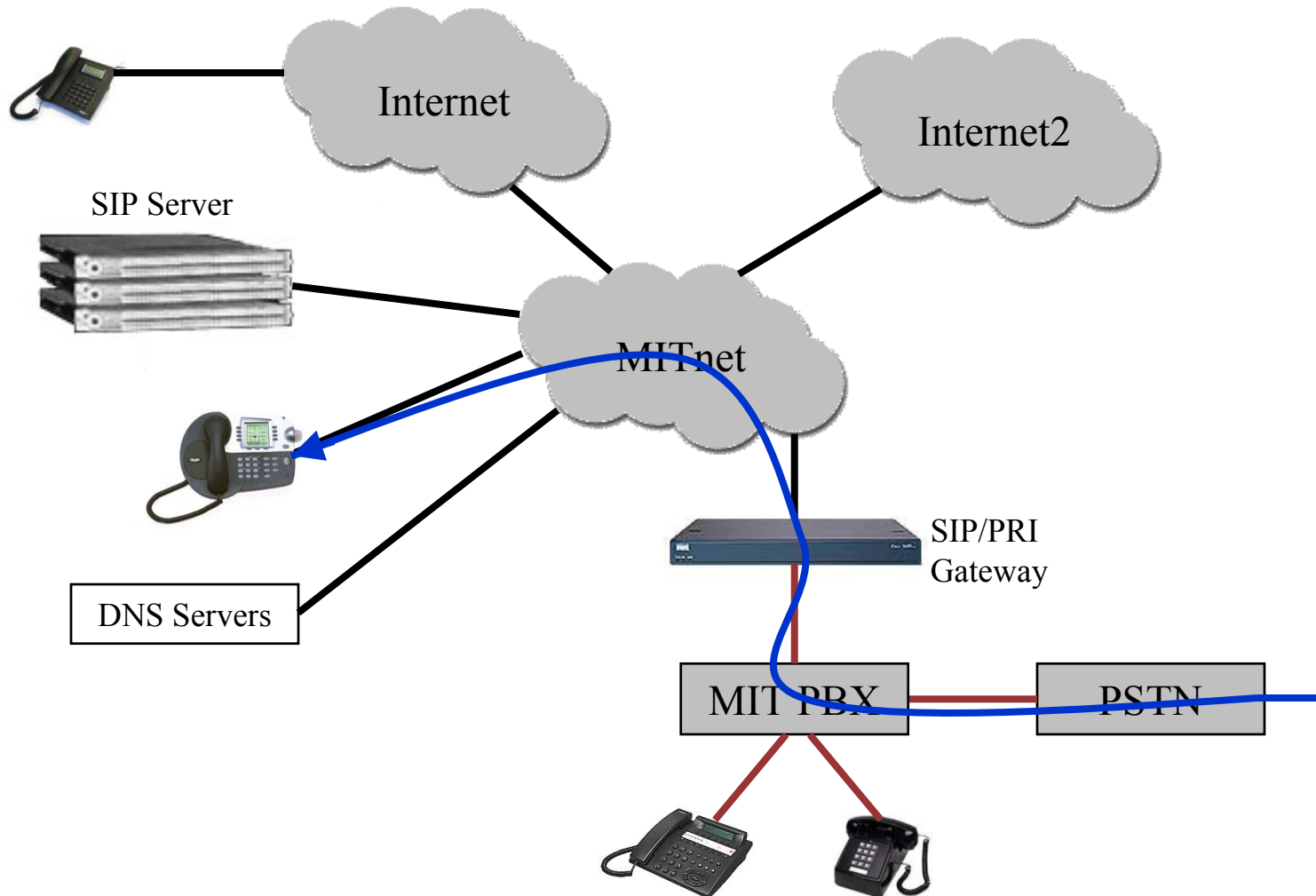
SIP@mit.edu Configuration



SIP@mit.edu Configuration



SIP@mit.edu Configuration



SIP@mit.edu Directory “Integration”

- Source data is in MIT Data Warehouse
- Extraced from warehouse with Brio Query
- Save as flat file
- Script converts to XML
- XML loaded into Pingtel proxy server

- **This is not how it should be done!**

SIP@mit.edu Lessons Learned

- Requires some thought
 - Where to get directory information
 - Dial plans
 - Gateway/PBX issues
 - **But it pretty much just works!**
- If you couldn't remember phone numbers before – you never will!
- Students haven't caught on... yet

How to get started

SIP.edu Installations – 10/13/03

SIP@mit.edu

Pingtel SIPxchange proxy

Cisco gateway

Lucent PBX

SIP@upenn.edu

iptel.org SER proxy

Cisco gateway

Centrex – Nortel

SIP@yale.edu

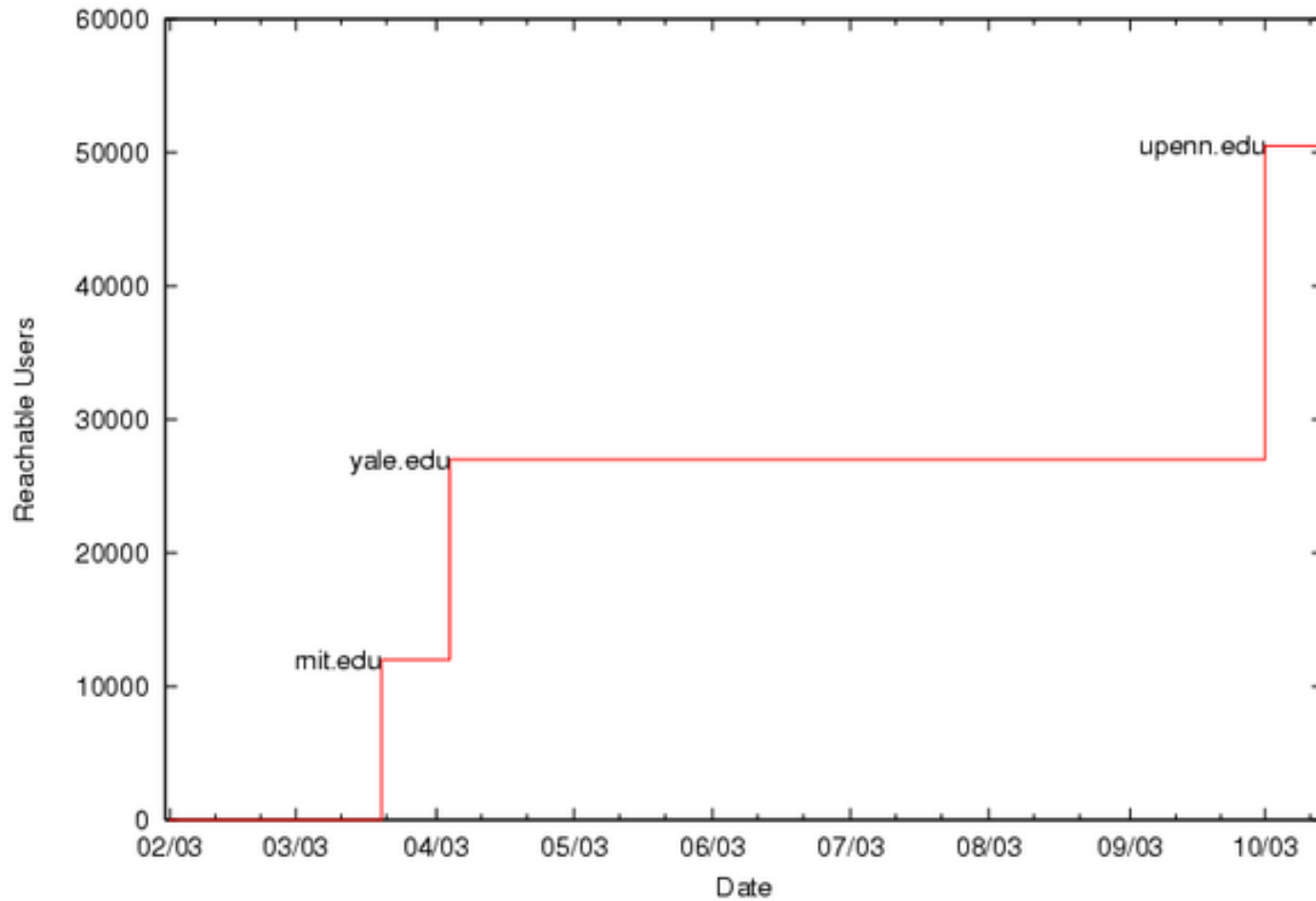
iptel.org SER proxy

Cisco gateways

Nortel PBX

Next?

SIP.edu Reachable Users



SIP.edu – How To Get Started

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or, if you must!

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Questions?
