

# **The Full Service Branch**

## **Voice and Video Solution**

**Cisco Korea**

## **Agenda**

- **IPT overview in branch**
- **Issues in Market Survey**
- **Cisco Solution for IPT – New Services**
- **IP/VC overview**
- **Cisco Solution for IP/VC**

# **IPT Video**

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## **Voice and Video Solution (Issues in Branch)**

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# Issues in Branch

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- Application

- SMB
- VMS/UMS

가 ,

## Cisco Full Branch Solution

- HQ
- Branch Voice Data

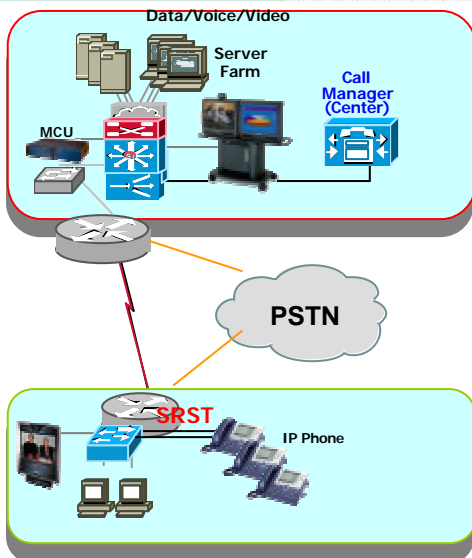
- Data Voice
- branch

- communication

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# Voice and Video in Branch

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- 가
- Communication
- Employee Royalty 가

### Application

- IP Telephony: IP PBX
- Cisco Unity: IP UMS
- IP Voice Conference
- IP Video Conference
- Softphone thru VPN

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# Issues for IPT

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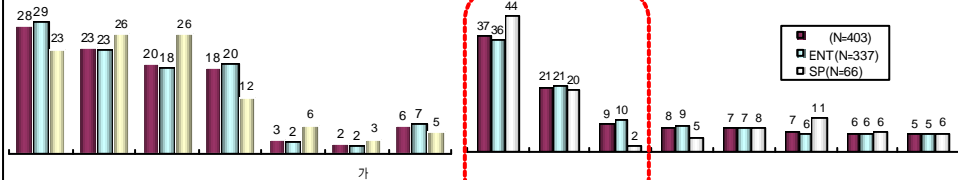
Key Finding

가 가

IPT

IPT

(N=403) ENT(N=337) SP(N=66)



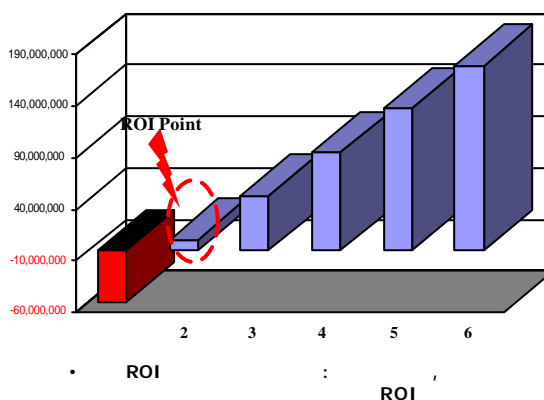
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## Cisco Solutions for Issues

( - PBX Cisco IPT ROI Point)

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❖ PBX Cisco IPT ROI



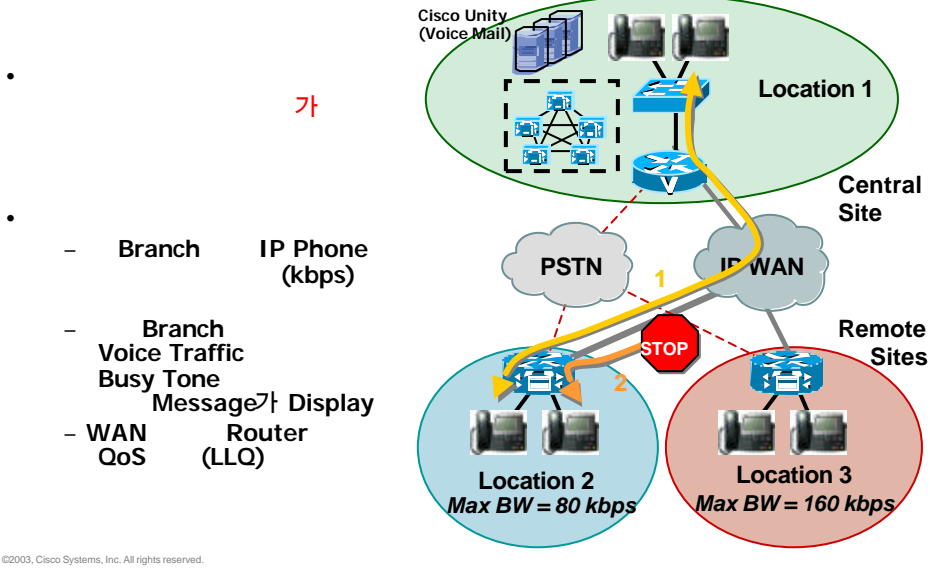
- 10 500 ( ) , 1
- ( ) : 1
- 100 ( 5 )
- 510 3700 :
- IPT : Cisco, PBX : A
- List Price

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# Cisco Solutions for Issues

## - Control by IP PBX

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# Cisco Solutions for Issues

## - Cisco IP Phone

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- Voice Clarity: MOS G.711 = 4.38-4.39 and G.729 = 3.9.
- Voice Clarity: PSQM G.711 = 0.56-0.61 and G.729 = 1.59-1.67.
- Delay (round trip): G.711 = 96-116ms and G.729 = 115-135ms.
- Delay (one way): G.711 = 50ms and G.729 = 56ms.

### MOS Score Definition:

Mean Opinion Score is based on subjected listening as described in ITU-T P.800. Scores are from 1 to 5, where 5 = highest score & 1 = lowest.

MOS Score	Meaning
5	Excellent - Better than toll quality
4	Good - Toll quality
3	Fair
2	Poor
1	Bad

### PSQM Scores:

PSQM scores are based on objective algorithm in ITU-T P.861 that represents the amount of voice quality degradation.

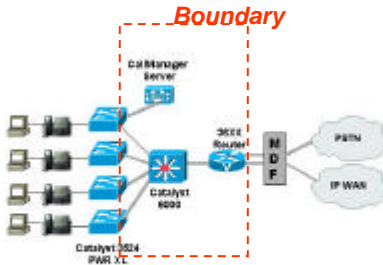
Scores are from 0 to 6.5, where 0 = highest (least degraded) to 6.5 = lowest (most degraded).

# Cisco Solutions for Issues

## – Availability in HQ

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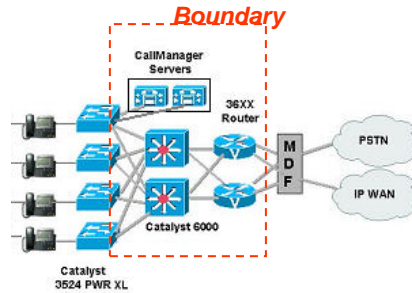
### Non-redundant



Availability: 99.9709  
Downtime: 153.0 min/year

*Three Nines*

### Redundant



Availability: **99.9997**  
Downtime: **<6 sec/year**

*Five Nines*

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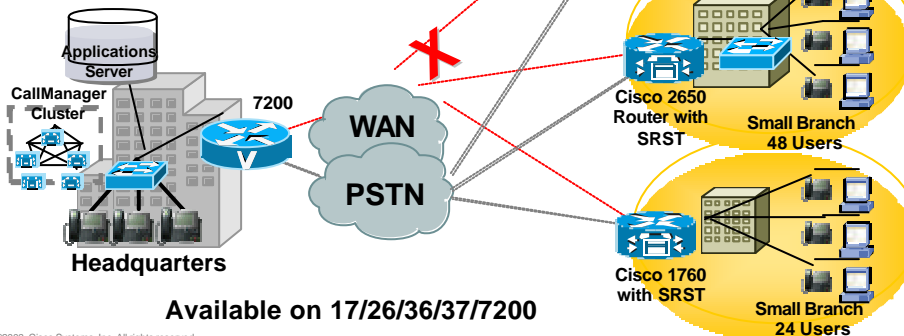
# Cisco Solutions for Issues

## – SRST in Branch

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- SRST HQ Branch WAN Router가 HQ Call Manager Branch Line Router가

- Cisco Small/Mid range (17xx, 26xx, 37xx, 72xx)



Available on 17/26/36/37/7200

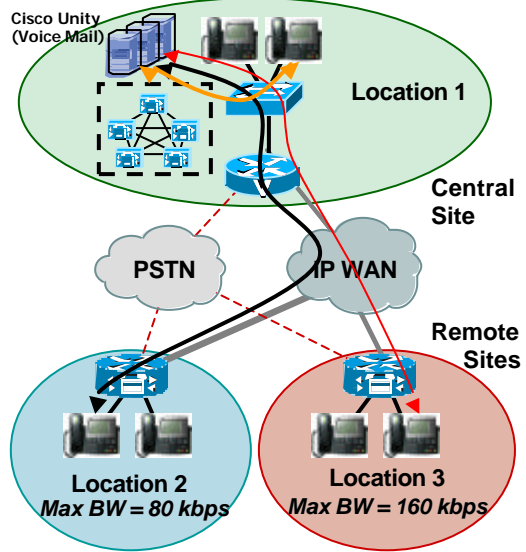
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## - Centralized UMS

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- ( , email) UMS IP 가
- 가 Branch application
- - 가 Office Branch UMS
  - Communication Branch
  - Branch royalty 가



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## - Mobility ( )

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- Cisco IP Telephony Mobile Office
  - 가
- IP Phone
  - IP Phone Call Manager 가 LAN
- Extension Mobility
  - Login/Logout IP Phone 가
- - Wireless IP Phone
  - PDA with Softphone
  - Laptop with Softphone



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## - V3PN

## IPT

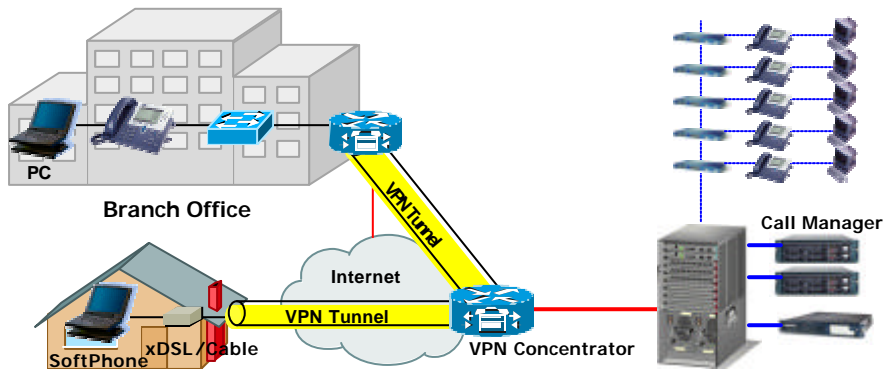
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- Home

Cisco Router VPN  
PC Softphone  
Application

IPT  
HQ

가



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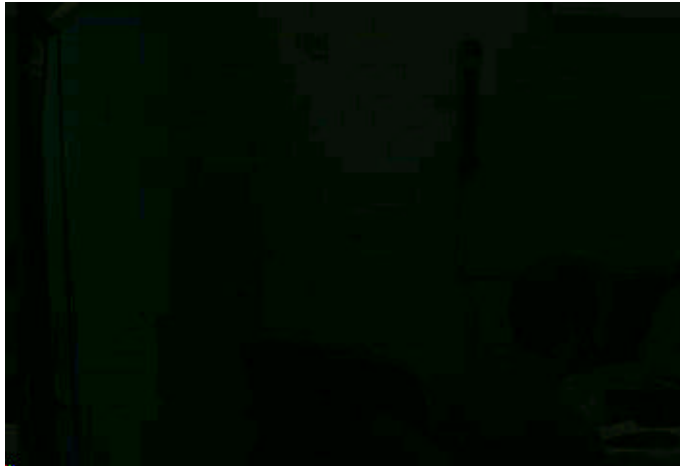
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## Cisco IP/VC Solution

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# IP/VC Video

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## Why IP Conference?

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- **Packet Switched – H.323**
  - Data focused, Decentralized or Centralized
  - The future of Communications Networks (NGN)
  - Ethernet, IP, ATM, Frame Relay
  - Incremental cost of more IP bandwidth
  - Can combine with IPT
  - Data Collaboration
- **Circuit Switched – H.320**
  - Older technology, Centralized Model
  - Voice focus, low latency
  - PSTN, ISDN
  - Monthly access charge
  - Per-minute call charges
  - Required access device (CSU, NT)
  - Larger Network Management cost because of separated network, video and data.

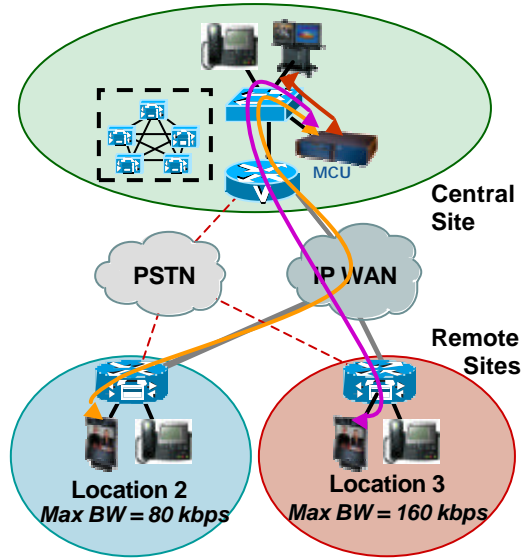
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# Cisco IP Video Conference Overview

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- ISDN Video Conference가 , IP Video Conference

- - IP ,
  - IP application (Data Collaboration) 가
  - Travel

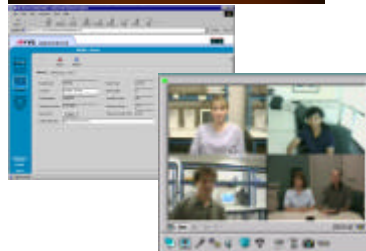
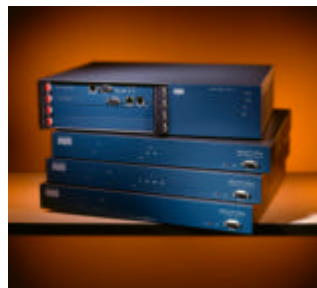


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# Cisco MCU Solution

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- Cisco IP/VC 3540
  - Multipoint control unit
  - H.320 to H.323 gateway
  - T.120 data conferencing server
    - PC
  - Rate Matching
    - Matching MCU
  - (4 x4: 16, 1+12, 2+8, 3+4)
  - Web
  - IVR
  - - 30 300
    - 가
  - ISDN Gateway, H.320 Terminal



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# Demo

## Demo Contents

- **IPT and IP Video Conference**
  - Voice Conference
  - Video Conference with Data Collaboration
  - Mobility (Basic and Extension Mobility)
  - UMS/Voice Mail from Branch office
  - Softphone on Notebook thru VPN