

Media Gateway Control Protocol (MGCP)

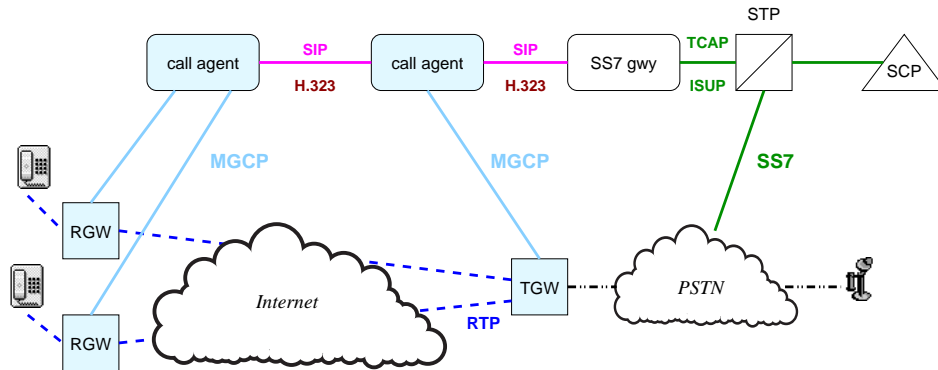
MGCP/1

MGCP

- gateways between IP telephony and PSTN: audio (media) and signaling
- large: digital (T-1, DS3), PBX \Rightarrow lots of DSPs
- small: residential gateway (1–2 lines) \Rightarrow cheap
- separate media gateway (MG) from media gateway controller (MGC)
- one MGC can control \gg 1 MG

MGCP/2

Architecture



MGCP/3

Rationale

- service deployment: upgrade a few, not every household
- charging for services like call waiting or caller ID
- reliability: 911 ... “general protection fault”
- simple end systems
- but: subscriber can only have one provider

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Connections, Endpoints, Events, Signals

end points: sources and sinks of data

connections: point-to-point, multipoint: ATM, IP, FR, PSTN, ...

events: off-hook, on-hook, flash hook, dialed digits, ...

signal: apply dialtone, ringing, busy, ...

packages: groups of signals and events

dialing plan: [xxxxxxx|1xxxxxxxxxxx | 011x.T]

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Describing Connections

MGCP uses SDP to describe connections:

```
v=0
c=IN IP4 128.16.59.1
m=audio 3456 RTP/AVP 0 96
a=rtpmap:96 G726/4
```

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MGCP Commands

NotificationRequest: call agent requests gw to send events

Notify: gw sends event: e.g., off-hook

```
RQNT 1201 endpoint-1@rgw-2567.mci.net MGCP 1.0
N: ca@cal.mci.net:5678
X: 31415
R: hd
```

```
NTFY 2001 endpoint-1@rgw-2567.mci.net MGCP 1.0
N: ca@cal.mci.net:5678
X: 31415
O: hd
```

CreateConnection: attach endpoint to IP address

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ModifyConnection: change IP address, port, ...

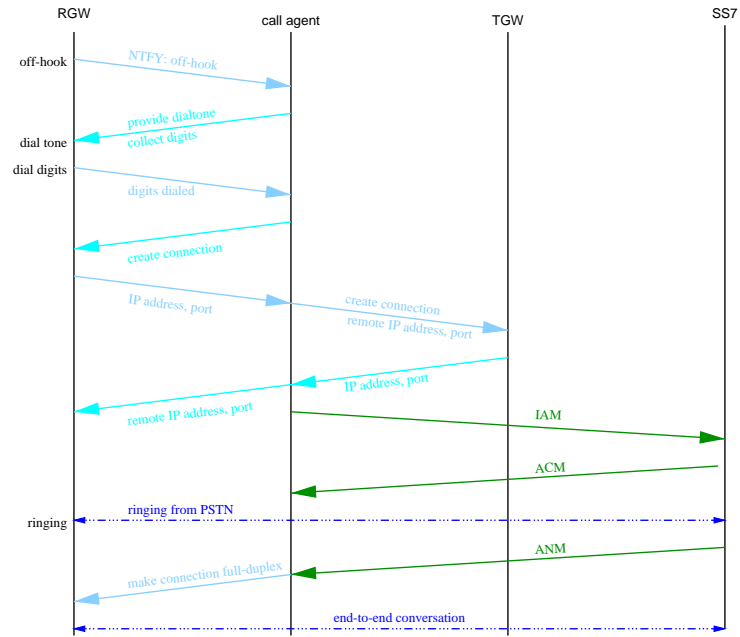
DeleteConnection: returns statistics (packets sent, ...)

AuditEndpoint: get status of endpoint (events, dialing plans, ...)

AuditConnection: get status of connection (id's, parameters)

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Interoperation with PSTN



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