

The State of SIP

Results of Miercom and BCR 2006 Primary Research Study

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Assessing the State of SIP

- Emailed survey completed by about 40 vendors implementing SIP in new or re-engineered products
- Probing questions in 2 areas:
 - Their products, features and interoperability
 - Their views of SIP – strengths, challenges, etc.
- In-depth interviews with leading vendors (Avaya, Cisco, Microsoft, others)

Issues with SIP – 2006

- Features: What's standard? What's not?
- How solid are the SIP specs?
- Are SIP products interoperable today?
- Who are the SIP standard bearers?
- What're SIP's long-term prospects?
- How do IP-PBX leaders compare, re: SIP?

Survey says ...

- 80 vendors contacted, agreed to accept survey.
~ 40 complete responses received
(incompletes, duplications were eliminated)
- < 10% requested anonymity
- In-depth interviews with 15 to 20%
- Responses represent roughly half of the SIP vendor community
- SIP-based carrier services were *not* included

SIP Features

- How come, via SIP ...
 - 3Com does 175 features?
 - Avaya does 60+?
 - Cisco does 170+?
 - Pingtel does 20+?
 - Siemens does 200+?
 - Nortel does 450+?

SIP Features

- Our analysis: 5 categories of SIP features
 - Solid SIP features – maybe 25 to 30
 - Still Draft, up and coming – 30 to 50 more
 - “Feature-code” access (Avaya does 50+)
 - Proprietary SIP extension (some do 100+)
 - Private property (non-SIP); like Cisco CDP

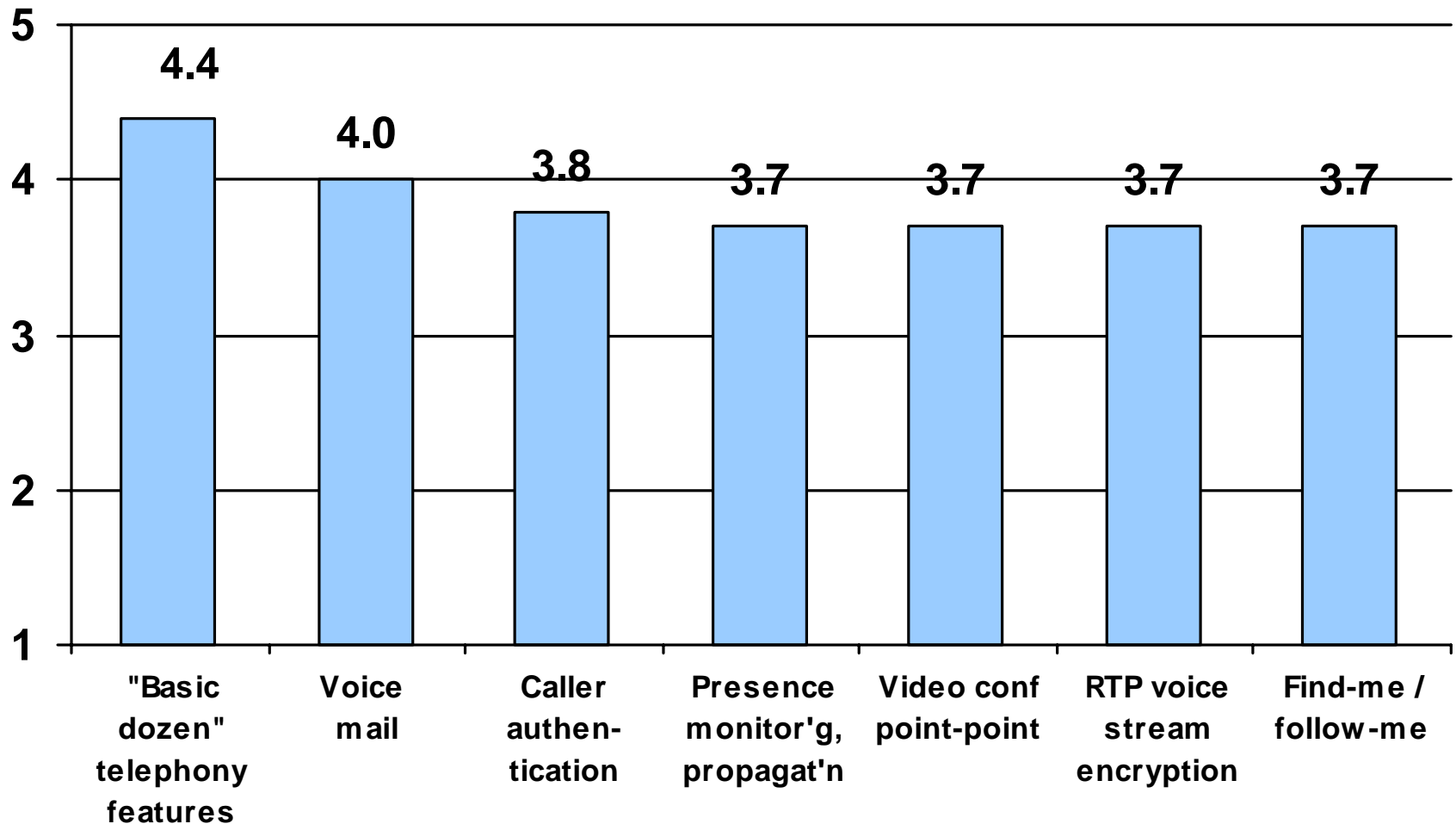
SIP Features

- Prospects for multi-vendor interoperability
 - Solid SIP – Excellent
 - Still Draft – Hit and miss
 - “Feature codes” – Very good
 - Prop SIP ext’s – Poor (w/o collaboration)
 - Private property – Generally, none

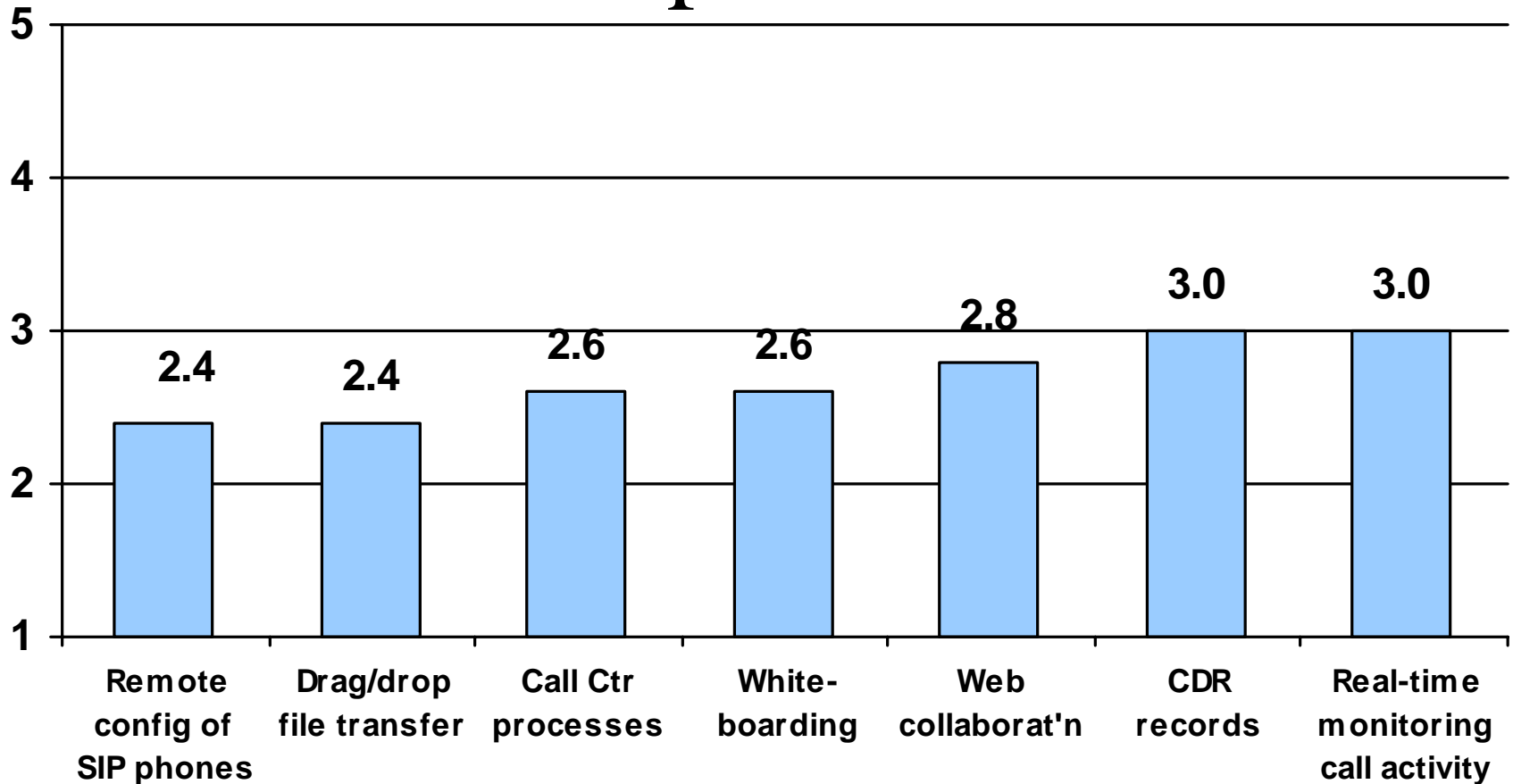
State of SIP Specs

- Vendors asked to rate “the state of current SIP specs, from all sources, for implementing these features and functions”
- Asked about 22 specific features
- Used a 1 to 5 rating scale
 - 5 = complete, solid, clear, stable, unambiguous
 - 1 = minimal to no standardization yet; or incomplete or ambiguous; needs a lot of work

State of SIP Specs – Most Solid



State of SIP Specs – Least Solid



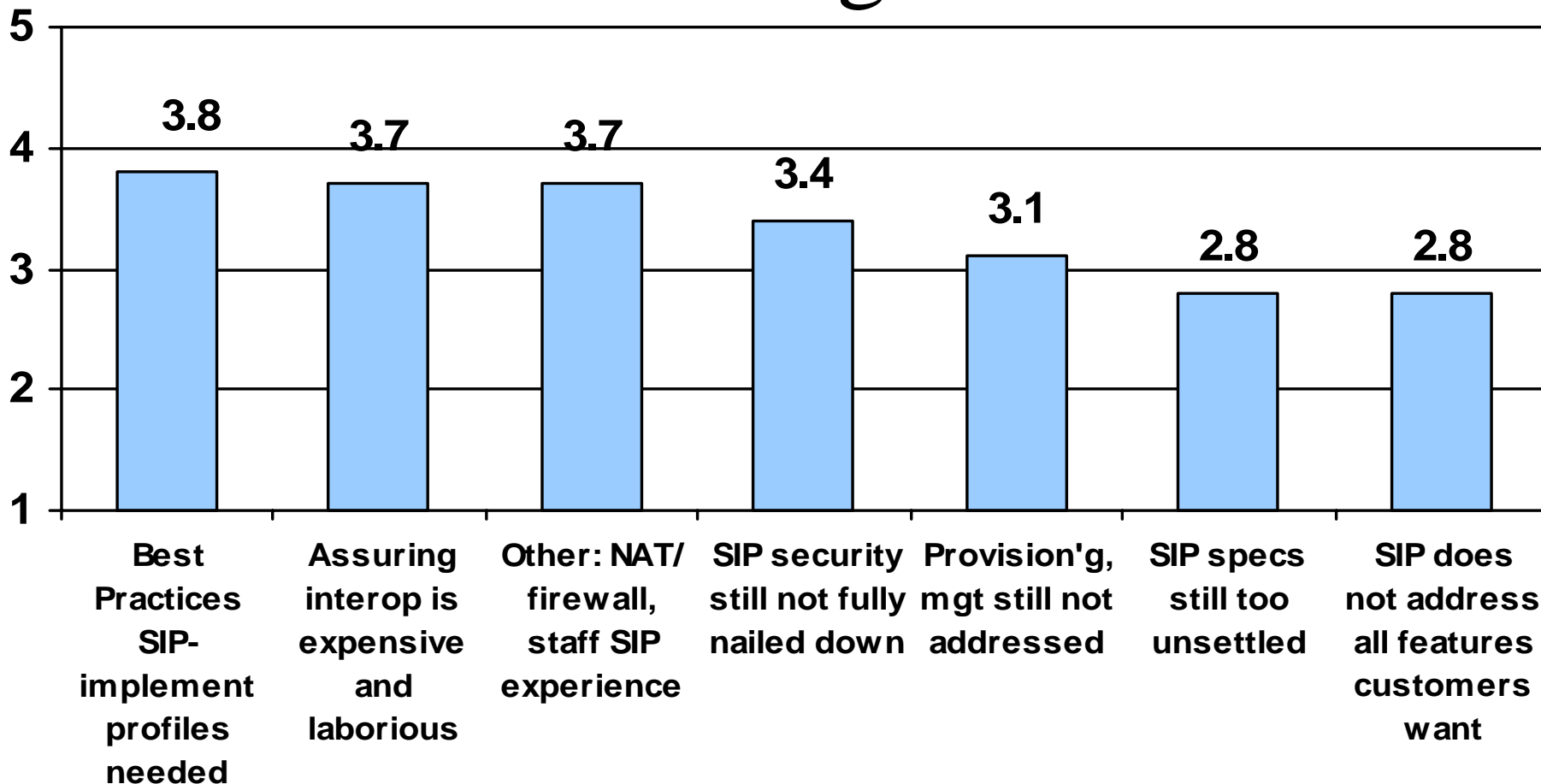
State of SIP Specs – Bottom Line

- In only a few areas is there widespread agreement the specs are solid and complete (basic dozen phone features, voice mail, presence, point-point video conferencing)
- “Advanced” applications and phone features are rated generally as “there are some specs, but a lot more detail is needed”

What's Holding SIP Back?

- Vendors asked to rate “How important is this factor is to impeding SIP proliferation?”
- Asked about 7 particular concerns, and vendors could specify “others”
- Used a 1 to 5 rating scale
 - 5 = Absolutely key
 - 1 = Not true, or not a factor at all

What's Holding SIP Back?



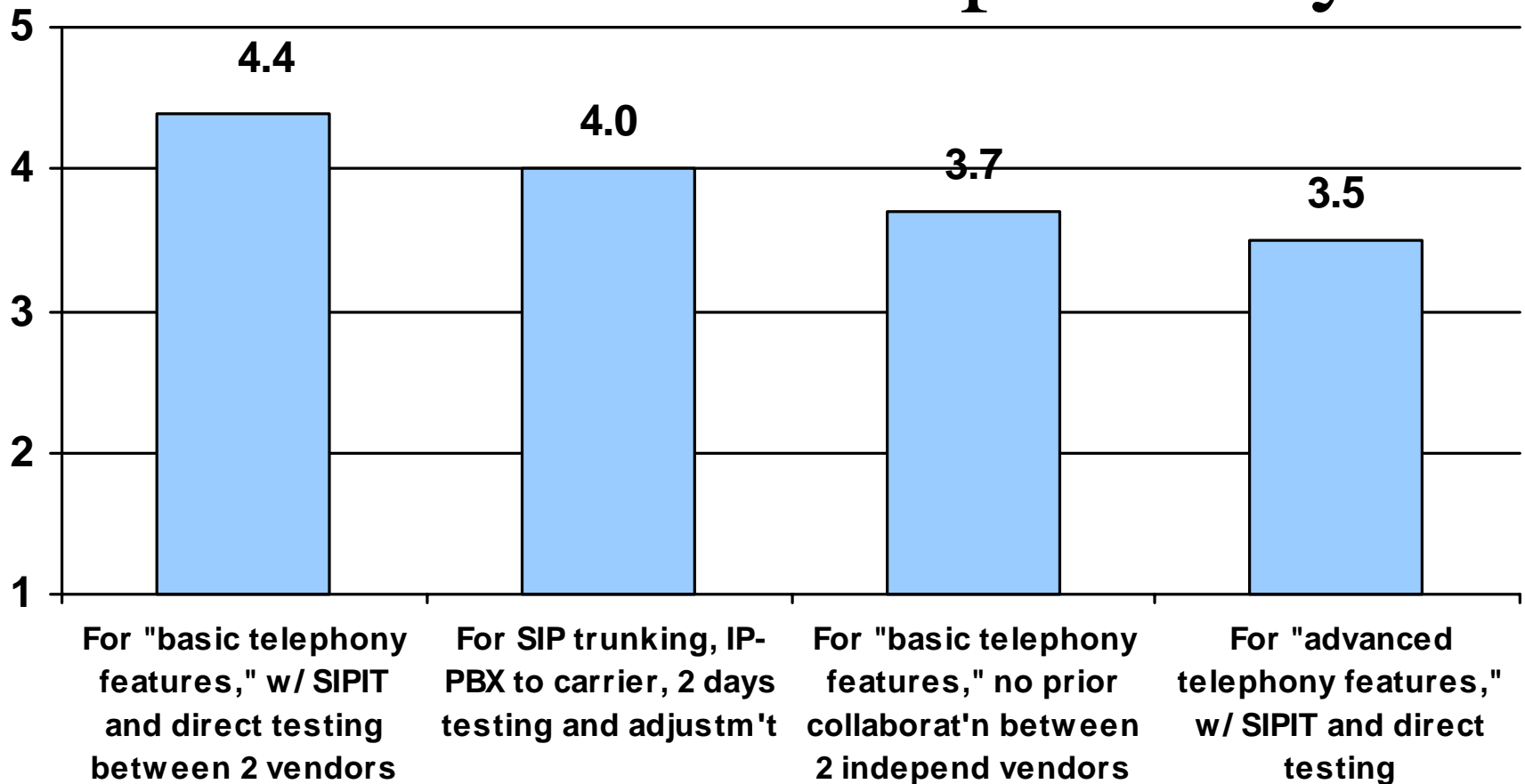
Holding SIP back – Bottom Line

- Implementation profiles (‘Best Practices,’ not typically a part of IETF specs) are key
- Assuring customers of interoperability takes considerable time and resources
- Others: Complex and unsettled NAT, firewall-traversal solutions; staff inexperience with SIP

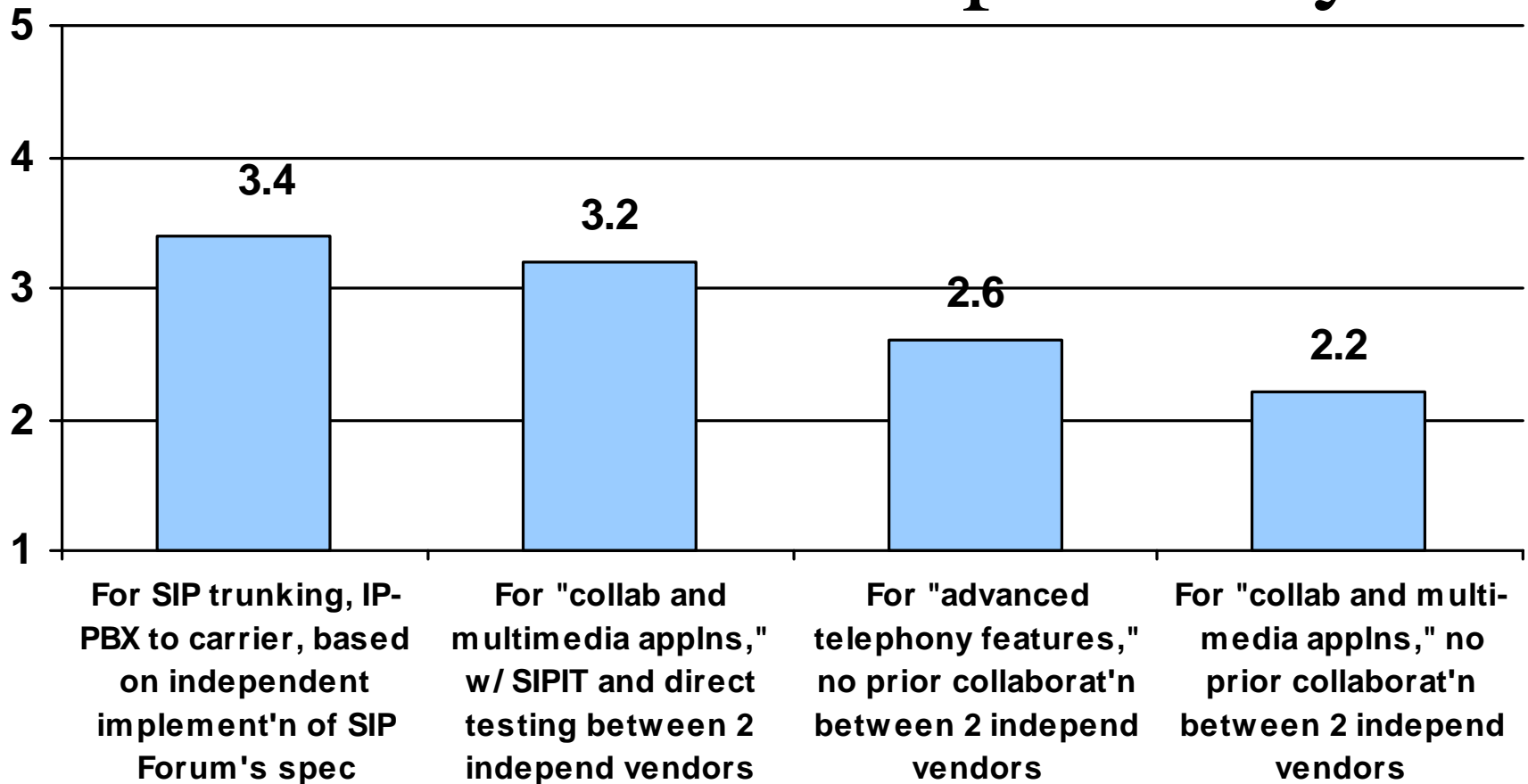
SIP Product Interoperability

- Vendors asked to “Assess the state of inter-vendor SIP-product interoperability ...”
- Given 8 environments
- And using a 1 to 5 rating scale
 - 5 = Plug-and-play, full-featured interoperability
 - 1 = No chance of any meaningful interoperability without a lot of work and tweaking

SIP Product Interoperability



SIP Product Interoperability



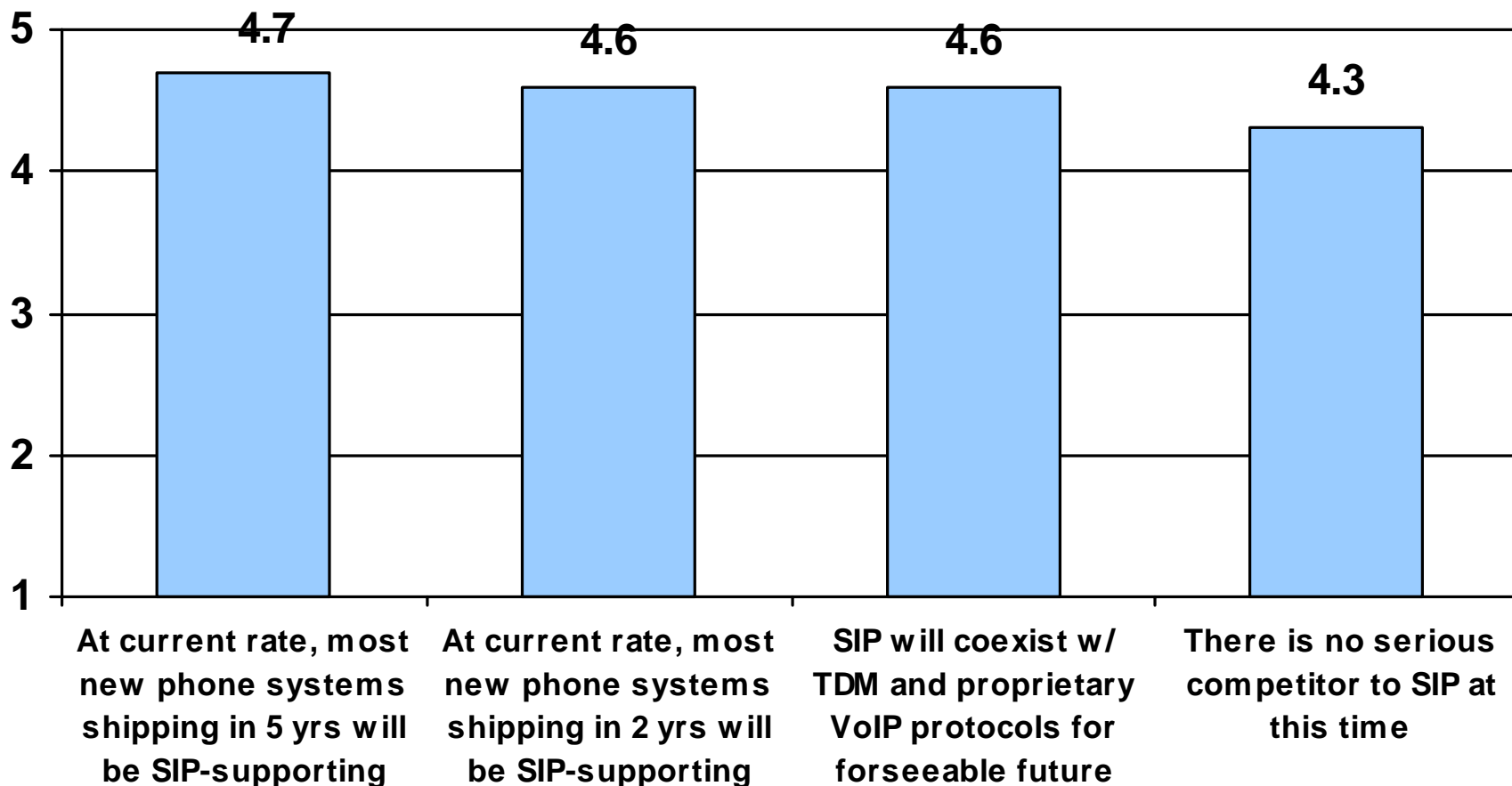
SIP Product Interop – Bottom Line

- Interop prospects are good for “basic” telephony features, even with no prior collaboration between vendors
- Good chance of SIP-trunking interop, if both ends based on SIP Forum trunking spec
- All else, users should insist on SIPIT or direct collab/testing between 2 vendors

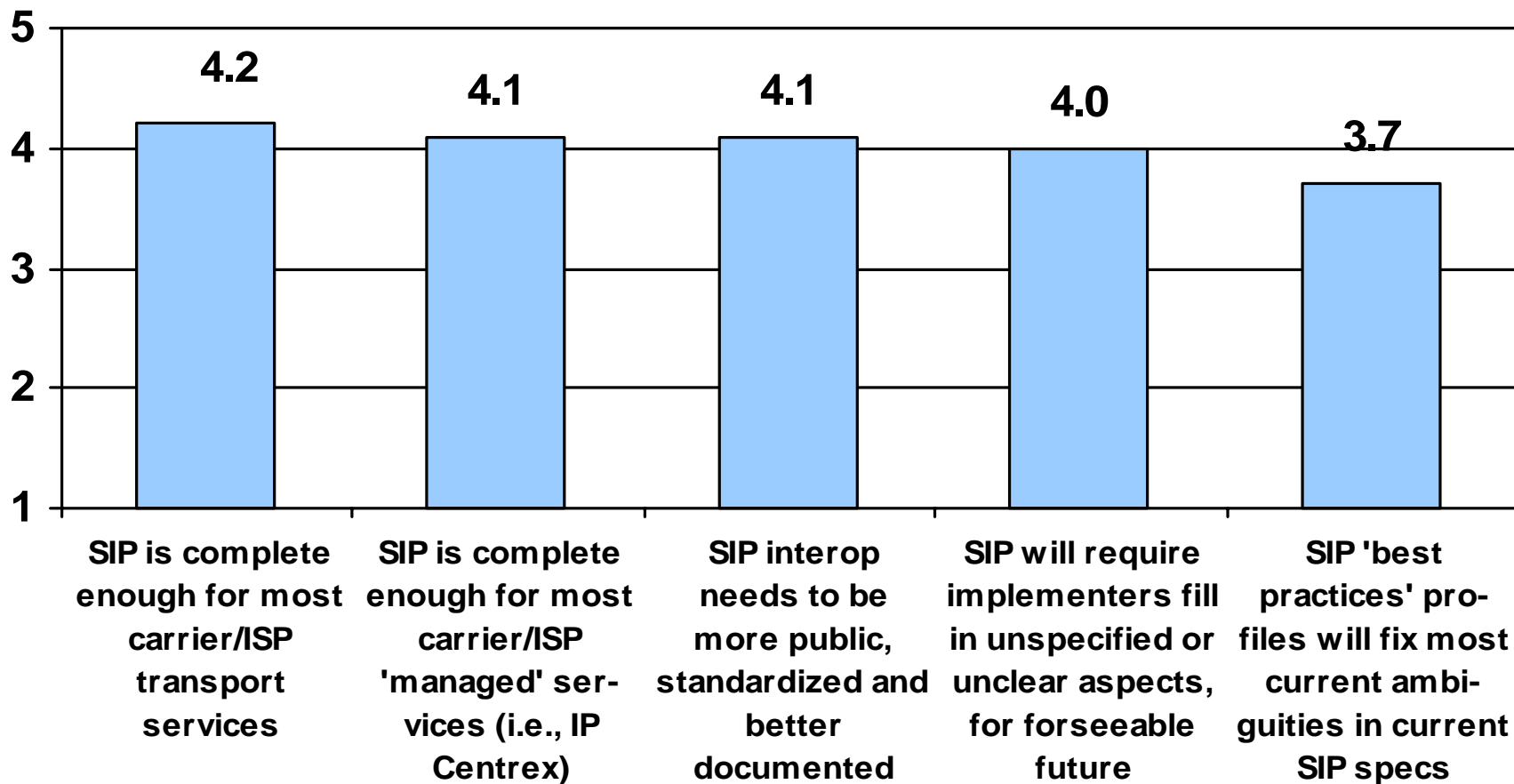
SIP's Future

- Vendors asked how strongly they agree or disagree with statements about SIP's future
- Given 9 statements
- And using a 1 to 5 rating scale
 - 5 = Strongly agree
 - 1 = Strongly disagree

SIP's Future



SIP's Future



SIP's Future – Bottom Line

- SIP will be standard on most new phone systems in 2 years, respondents believe
- There is currently no competitor to SIP
- TDM and proprietary protocols will stay for some time and coexist with SIP
- Implementation, interop problems will persist but future for SIP is rosy for the long term

SIP Interop – Who's out in front?

- #1 = **Cisco**: Over 60 percent of respondents claim they are SIP-interoperable with Cisco.
 - In most cases interop is with the SIP basic-telephony feature set firmware Cisco has long offered for its IP phones
 - But many others are claiming interoperability w/ Cisco's SIP gateways and SIP proxy server

SIP Interop – Who's out in front?

- #2 = **Asterisk**: Over one-third of respondents claim they are SIP-interoperable with Asterisk.
 - A leading public-domain SIP IP-PBX, offered in a commercial version by Digium

SIP Interop – Who's out in front?

- #3 = **Grandstream** and **snom**: Over 30% of respondents claim they are SIP-interoperable with the IP phones of Grandstream and snom.
 - These are two market-leading, fast growing, SIP-based IP phone vendors

SIP Interop – Who's out in front?

- #4 = **Nortel**, and **CounterPath**: Over one-fourth of respondents claim they are SIP-interoperable with these two vendors.
 - Nortel's powerful SIP-based Multimedia Comms System (MCS), a dazzling SIP application system, is offered in carrier and enterprise versions
 - CounterPath (was Xten) eyeBeam softphone has become the industry leader

SIP Interop – Who's out in front?

- Next leading SIP-interop targets = Avaya, Pingtel and Sylanro
 - Avaya's SIP Enablement Services (SES) – formerly CCS – is a SIP call controller that augments Avaya Comms Manager
 - Pingtel was first commercial pure-SIP IP PBX
 - Sylanro leads as a SIP applications platform for carriers and service providers

SIP Interop – Who's out in front?

- Leading SIP gateways; in order of most-frequently cited as SIP interop-tested:
 - Audiocodes
 - Mediatrix
 - Quintum
 - Vegastream

SIP Interop – Who's out in front?

- Other frequently cited SIP interop targets:
 - Microsoft (likely LCS)
 - Siemens (likely phones w/ SIP firmware)
 - Mitel, Motorola, Linksys, Aastra and FirstHand Technologies (was SIPquest)
 - SBCs including NexTone, Sipura

How Serious about SIP?

- Avaya 0 - - - - 5 - - - - 10
- Cisco 0 - - - - 5 - - - - 10
- Nortel 0 - - - - 5 - - - - 10
- 3Com 0 - - - - 5 - - - - 10
- Pingtel 0 - - - - 5 - - - - 10
- Siemens 0 - - - - 5 - - - - 10

Review

- What features of traditional PBXs can be supported via approved SIP-standard specifications? What features can't be?
- To what extent do different vendors' SIP elements truly interoperate?
- Are vendors' newer SIP-based systems backward-compatible with their earlier products based on proprietary protocols?
- In which areas of the network are SIP implementations most likely *not* to interoperate?