

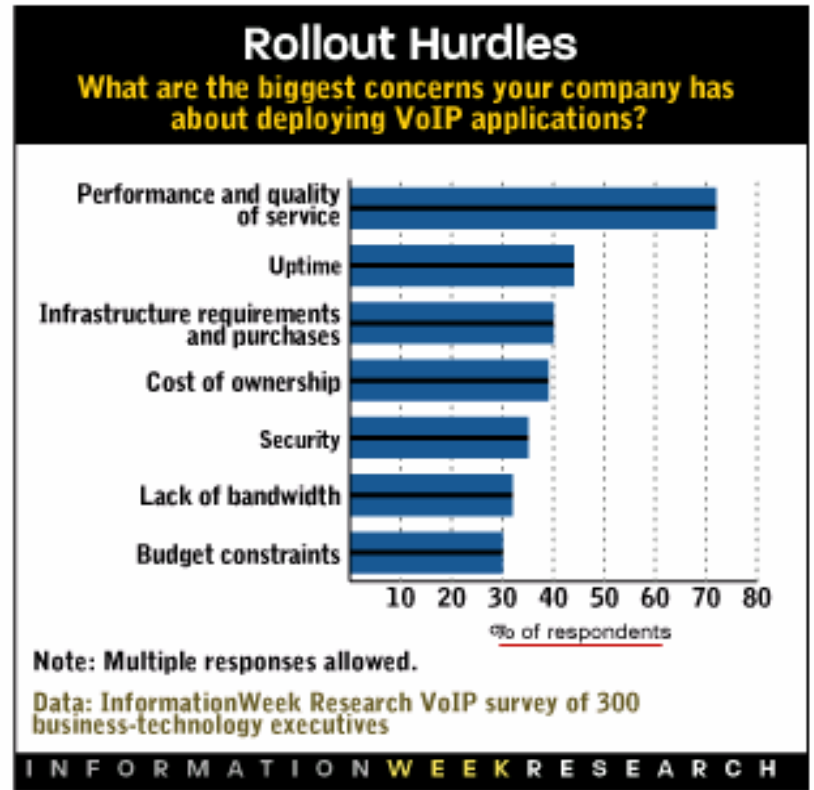


Shuir up dq fh#  
P dq djhp hqw#lq  
Y rLS Q hwz runv

N d | qdp #K hgd | dw

Q hwz ruog . Iqwhurs  
P d | #5338

## What are the biggest concerns your company has about deploying VoIP applications?



- ❖ Users have high expectations  
UR I#r u#s ul#f h#d a r#q h#z l a#r w#h q#v x#u h#x f#f h#w
- ❖ VoIP - Complex, high-maintenance  
T x#d o#w | O#v h#q v#l y#h /#p x o#w l o#y h#q g#r u#v | w#h p v#/# f#r p s#d {#s u#r w#r f#r o#v
- ❖ Existing management solutions do not address problems  
F r#q y#h u#j h#q f#h #r i#y r l#f h#d q#g #L#S # p d#q d#j h#p h#q w
- ❖ Same network, more traffic  
G d#w d#d q#g #y r l#f h#u d#i l#f #l q#w h#u i#h u#h q#f h

- ❖ Fxw#R shudwlrqdc#F rww
  - Reduce and eliminate costly outages
  - Proactive approach results in less firefighting
  - Advanced troubleshooting tools means smaller MTTR
  
- ❖ Iqfuhdvh#P dujlq#dqg#Sur ilw
  - 60% faster deployment (faster time-to-market)
  - Eliminate poor quality-induced PSTN failovers
  
- ❖ J hqhudwh#Q hz #F xdcw| Ødvhg#Uhyhqxh#Vuhdp v
  - Guaranteed service can carry 10-20% premium
  
- ❖ Uhgx fh#F xwrp hu#F duh#dqg#Vxssruw#F rww
  - Remote visibility avoids truck-rolls
  
- ❖ Dwwudfw#dqg#Uhwllq#Vdwvllhg#F xwrp huv
  - Avoid customer acquisition cycle and expenses

- ❖ *Network, VoIP Calls, Servers*
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- ❖ *Availability, Call Signaling Performance, Voice Quality*
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- ❖ *Packet loss, jitter, latency, echo, etc.*
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- ❖ *Notification, SLA's, Statistical Analysis of Data, Troubleshooting, Etc.*
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- ❖ D fwllyh#+V/qwkhwlf#F'daw,
  - Pro-active: see it before they hear it
  - Controlled scheduling: do not rely on users
  
- ❖ Sdwllyh#+X vhu#F'daw,
  - Measure actual user experience
  - Capture live network problems
  
- ❖ Frp p rql#J rdaw
  - Detect the problem
  - Identify the the problem
  - Localize the problem

- ❖ Service Quality Management
  - Signaling Quality (SIP, H.323, MGCP)
  - Delivery Quality (Media Path)
  - Call Quality (MOS, R-factor, E-model, PESQ)
  
- ❖ Service Quality Management
  - End-to-end coverage
  - Customer premise, PoP, core
  - Partner networks
  
- ❖ Service Quality Management
  - Build – Operate – Assure
  
- ❖ Service Quality Management
  - Preserve investment in existing OSS
  - Network management, trouble ticketing, provisioning

- ❖ P hwulfv#edvng#r q#r shq#wdqgdugv
  - ITU-T
  - IETF
  
- ❖ P rqlwrulqj#edvng#r q#q dwlyh#surwr fr α
  - SIP, H.323, MGCP/NCS, etc.
  - RTP/RTCP/RTCP-XR
  
- ❖ Shuydvlyh#edvng#r q#fr rshudwlrq#z lk#doqhwz run#hdp hqw
  - Media loopback (SIP, MGCP/NCS)
  - TWAMP
  - RTP Traceroute

