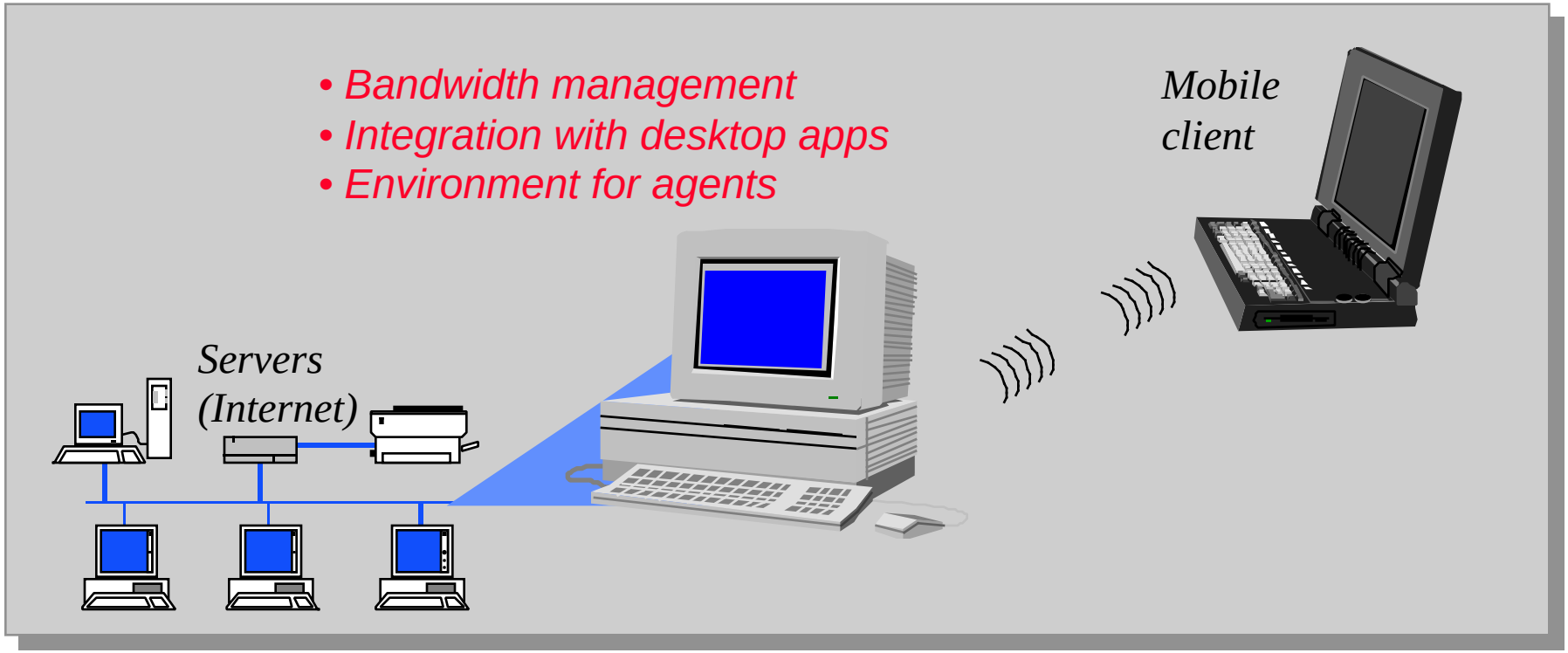
Proxy Architecture

- Process running on a well-connected desktop PC
- Isolates client from effects of poor networks



Proxy Architecture: Image Proxy

- *Distillation*: lossy compression that preserves semantic content
- Works in *real time* on desktop PC
- Client can request *refinement* of distilled image

78 colors, 49K bytes

4 grays, 530 bytes, <2 sec.

>256 colors, 759K bytes (1024x768)

16 colors, 12K bytes, <6 sec.

Video and PostScript®

- Try rendering PS or watching video on PDA screen...
- Real-time MBONE Video Gateway
  - *»Color reduction and halftoning*
  - *» H.261 or VQ output at ISDN or 28.8K (from ~3 Mbits)*
- PostScript to HTML
  - *» preserves significant formatting (not figures, yet)*
  - *» SPARC-20: ~5+2n seconds for n pages of text*
  - *»typically 5-7x size reduction*

Pythia, an HTTP Proxy

- Distills inlined images, user can request originals
- Filters irritating background patterns
- “Pipelined” PostScript to HTML conversion
- Per-user preference profiles
- Image distillers harvest NOW cycles

`http://www.cs.berkeley.edu/~fox/pythia.html`