From darrylr Fri Feb 15 16:10:03 1991

To: mikehal

Cc: billg mikemap

Subject: RE: Retreat - input due 2/18 Date: Sun Feb 17 15:49:07 PDT 1991

Date: Fri Feb 15 16:10:13 PDT 1991

1. Avoid product design paralysis. This kind of paralysis has increasingly become a problem here in recent years. It has for example slowed down the various efforts related to tayf in the past couple years. The mail and database efforts are other examples. How we can get each team to maintain clarity of vision and crisp decision making capability in complex or interrelated efforts is a major challenge.

- 2. Improve architecture and design skills of technical staff. Too few of our people have broad design experience. Most have come here straight from college and their design skills have grown up in a microcosm. Great architecture and design skills come from working on very diverse problems and learning a spectrum of alternative design approaches and their tradeoffs...and that in turn contributes to product vision, innovation, and great project execution. But for various reasons the environment here hasn't helped people acquire this kind of breadth or exposure. We also need to do better at finding and recruiting key technical people from outside the company.
- 3. Become super efficient software producers. No major player has yet made a competitive advantage out of how efficiently they can produce software but that will begin to happen in the 90's. The efficient producers will be the ones that dominate by the second half of this decade. There are investments we should make in improving our development and test tools, which today are not leading edge. However the most effective way to write software faster is to reuse software that's already been written. Making progress here is complicated by a cultural attitude among the developers that code reuse is impractical or unimportant.

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