The Eternal Debates:
IT = Inevitable Tensions

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Introduction

Over the past several decades of IT management, I've been struck by the number of times we are tasked with bridging the gap between (often) irreconcilable differences. Over the past couple of years, I've found myself making lists of some of these "inevitable tensions". Perhaps they may be useful to others. And in the (hypothetical) feature-length book version, perhaps there will be some examples or additional explanations :)

The Yin & Yang of IT: the eternal debates

Yin and Yang - Chinese words for complementary and opposite forces that make up the life force (Qi). (Link)

Success (in IT and elsewhere) is often about ***polarity management***, or said differently: "schizophrenia as a way of life".

IT = Inevitable Tensions and Infinite Transitions

These debates are bigger than central IT, indeed bigger than IT, but the bias of one's institutional and organizational culture around these issues represents the soil from which IT decisions and plans will grow –and either flourish or wither.

Governance & Control Debates

- Controlled vs. Chaotic
- Distributed vs. Centralized
- Carrots vs. sticks
- Monopoly vs. choice
- Agility vs. consensus-building
- Group-think vs. risk-taking
- Consumer vs. expert vs. crowd wisdom (individualism vs. elitism vs. democracy)
- Judgment & intuition vs. algorithms

Optimization Debates

- Local vs. global
- Tactical vs. strategic
- Efficiency vs. individual effectiveness
- Excellence vs. adequacy (and who decides?)
- Overprovisioning vs. admission control & accounting costs
- Monolithic vs. modular/component solutions
- Homogeneous vs. Heterogeneous
- Physical vs. Intellectual infrastructure investment

Risk Management Debates

- Cost vs. control
  - e.g. compliance in the cloud
- Cost vs. resilience
  - Converged vs. dedicated infrastructure
  - Homogeneity vs. species diversity
- Security vs. everything
  - Restrictions vs. flexibility
  - Technical vs. behavioral focus

Service Model Debates

- Commodity / one-size-fits-all vs. Customized
- Single Standard vs. "A thousand flowers"
- Adapt the business to the software, or vice versa
- Leading vs. responding
- Complexity vs. diversity vs. supportability
- Consumer vs. Enterprise technology
- High touch vs. Self service
- Build vs. buy vs. rent vs. barter

Business Model Debates

- Content vs. distribution: who brings more value?
- Funding
  - Core vs. taxes vs. fees; CapEx vs. OpEx
  - Freemium vs. subscriptions vs. micro-payments
- Quantity vs. Quality vs. Price
  - Cut costs vs. Increase service (& thus revenue)
  - Reduce prices vs. increase features
- Tragedy of the commons vs. uncommons
  - Pricing too low or too high, leading to death spirals...

The IT Engagement Continuum

Extremes:

- "always ask the customer" --> participatory paralysis
- "what customer?" --> bureaucratic insularity
- Both extremes lead to bad outcomes.

Engagement: not just a means to an end...
but also need to avoid "participatory paralysis"

Ideal level of partner engagement depends on:

- Which constituency (sector and instance)
- Level of the stack (infrastructure vs. applications)
- Tactical vs. strategic issues

Wretched IT Compromises

Balancing cost vs. control & choice:

Lower cost *usually*
Implies: **More scale**
Implies: **More aggregation**
Implies: **Less choice, less control**

On the other hand, there are limits to "economy of scale" --some technologies have a negative economy-of-scale once they reach a certain size, and smaller may also be cheaper when mass production learning curves can drive costs down for a smaller-but-higher-volume alternative. Moreover, optimizing for parameters other than cost (e.g. security, minimum interdependence) may push toward smaller/separate solutions.

There is a related tension between **freedom** (of choice) and **simplicity**. When individuals or units have more choices, there tends to be more diversity, which complicates interoperability and often increases support costs. On the other hand, some amount of choice is fundamental to our culture, and essential for both optimizing individual effectiveness and encouraging positive competition.

Reality Triangles

In each of these examples, the trick is to balance three competing parameters.

IT Projects

Resources – Requirements – Schedule

"You pick any two, I pick the 3rd one"

Budget Gaps

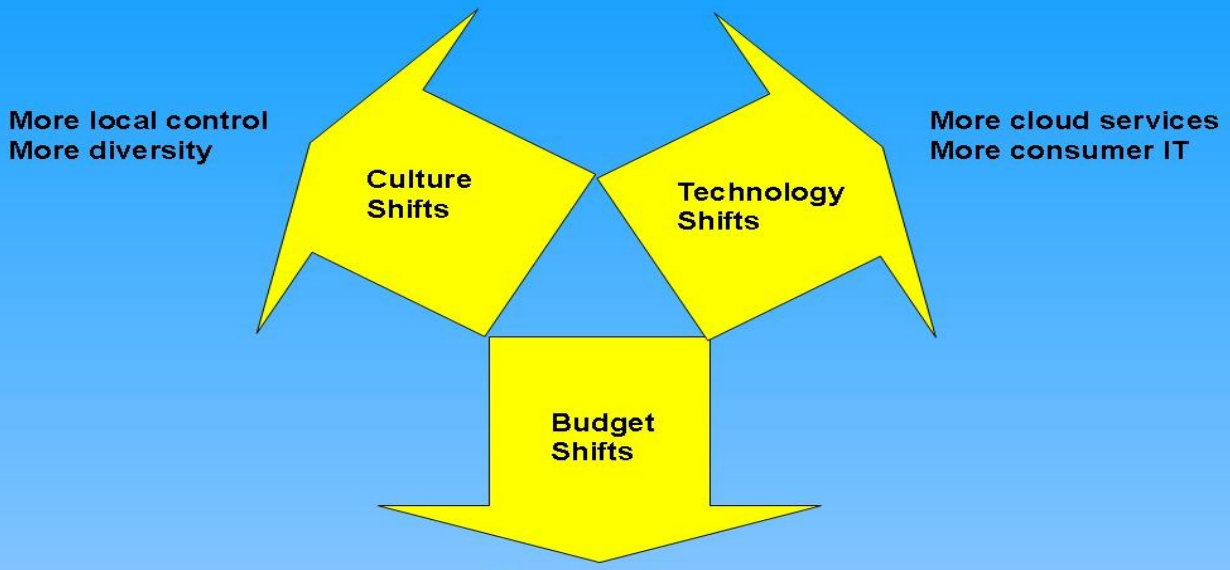
Service-Reductions – True Efficiencies – Fake Efficiencies

(Fake Efficiencies = cost shifting or deferral)

Service Management

Customer Needs – Engineering/Ops Needs – Business Needs

Conflicting Pressures



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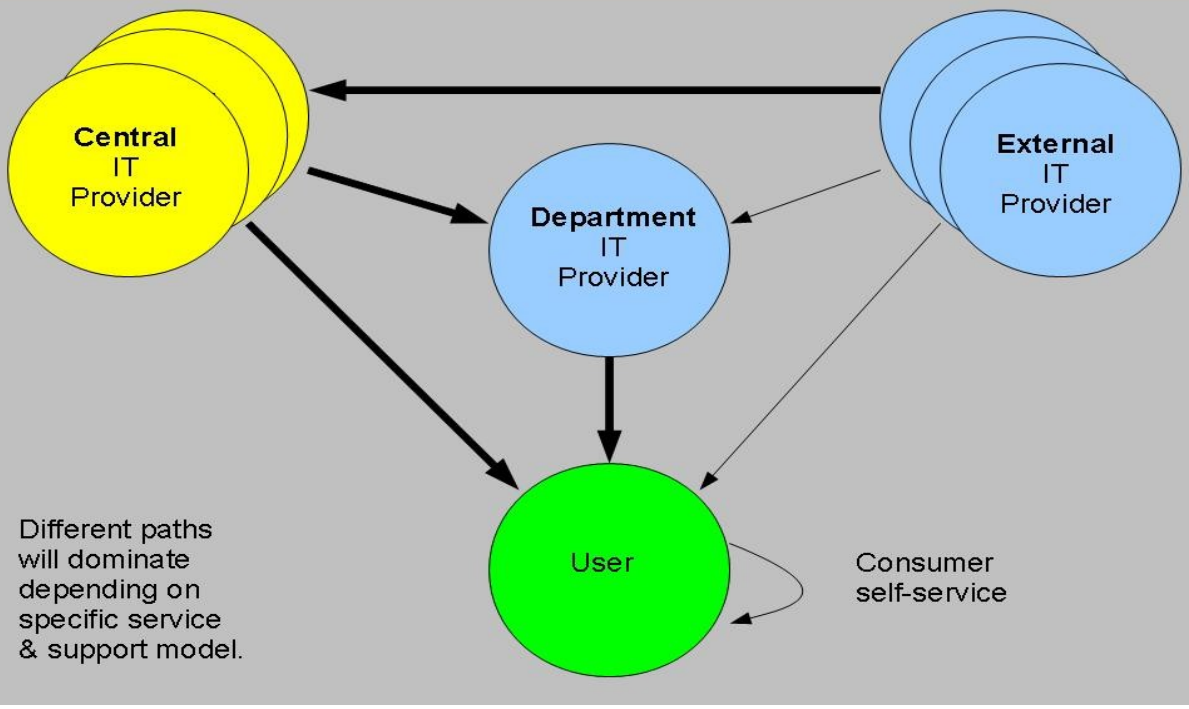
Service Provider Framework



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Distribution of IT service provisioning

The cost-vs-control polarity directly affects "who does what" in the IT provider food-chain. A crucial question is: how much *leverage* (cost-saving) is possible for a particular service via aggregation and resource sharing. However, the opportunities for saving-by-resource sharing sometimes conflict with practical staffing realities. For example, if a department has a multi-talented staffer who spends ¼ time on IT support, shifting that function to a shared service provider might allow them to spend time on other tasks, but it is unlikely that the department would recover ¼ of their salary in cost savings (less whatever the shared/aggregated service would cost.)

The hypothetical distribution below, not based on any actual data, postulates the degree to which each service provider level may be sourcing different classes of services. It should not be taken literally, but simply as a tool for thinking about how the mix has changed over the past decade, and how it might evolve as a consequence of the evolving IT marketplace and polarities noted above.

Each Row Totals 100%	*Departmental*	*Central*	*External / Cloud*
Domain-specific apps	65	15	20
Collab/Productivity Apps	10	10	80
Storage	40	40	20
Servers	40	40	20
Networking	10	90	0
Support	60	20	20
IT R&D	5	5	90

Conclusions

You may note that there are no solutions given here, only a catalog of challenges. It should be obvious that, in considering any specific conflict, there is no right answer for all contexts. In many cases, local culture will push in one direction or another. In complex organizations, there is no single culture, and therefore no unified momentum toward optimization of a single parameter. In such cases, IT service providers will need to walk the tight-rope between differing factions or perspectives, and face the prospect that making everyone happy is impossible. One can, however, strive to use decision processes which are generally perceived as fair, even by those holding a losing position. This is not easy, but since trust is the fundamental currency in IT, the goal is worthwhile.