

The Cal Poly Approach to the Future of Information Services

Cal Poly Information Services
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The Problem Set

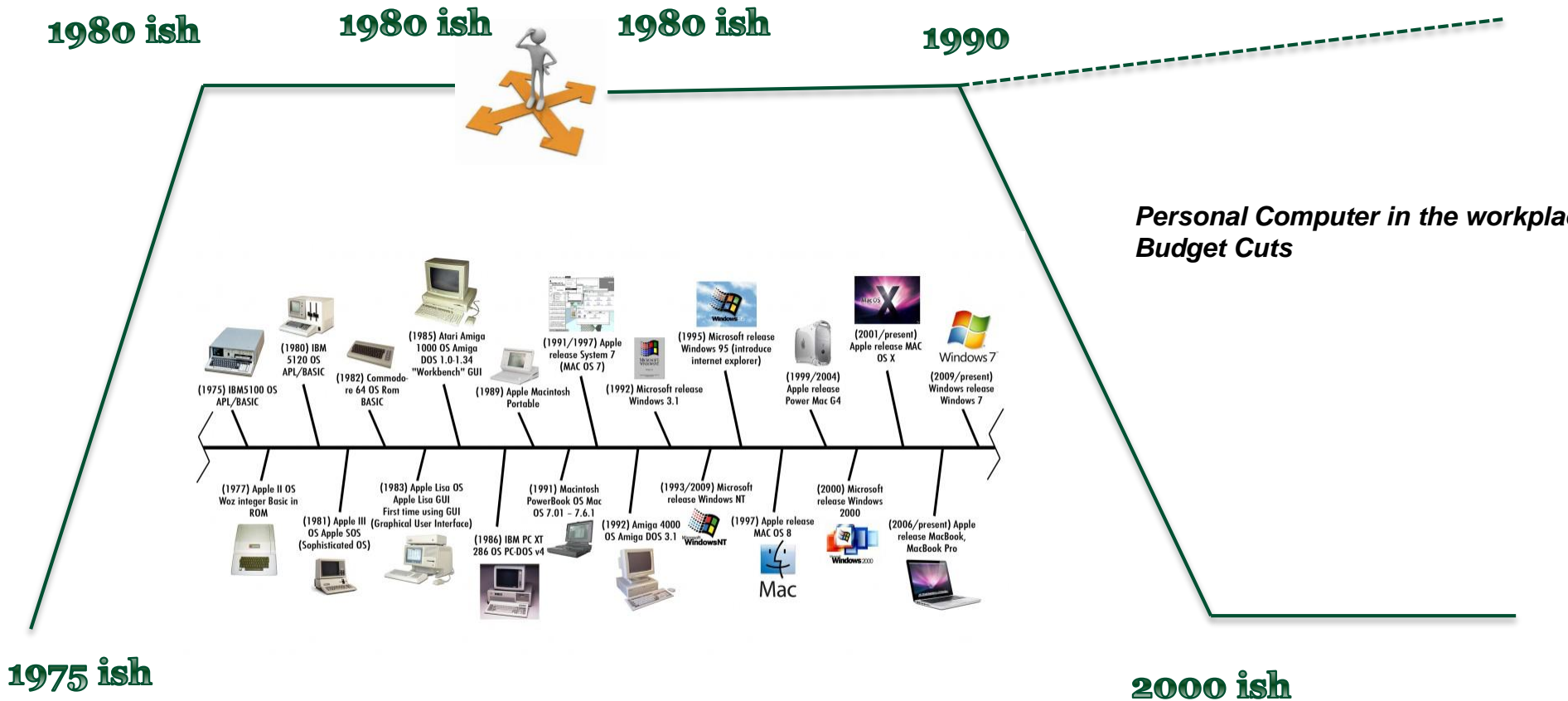
The Challenge

- It has often been said that the Cal Poly Infrastructure/ IT Enterprise is stuck in the 1980's.
- As the University systems gradually changed from being isolated or from using Research networks to being highly interconnected using commercial off-the-shelf technologies and open standards, the cost structure changed significantly.
- Until the 1980s, Research Equipment was allowed to support and become Operational. At one time Cal Poly had (via gifts and grants) one of the most robust and advanced IT architectures in the CSU system.
- With changes in acquisition policy and grants and gifts, the University did not budget replacement systems but how to band-aid-sustain the high-end systems we had

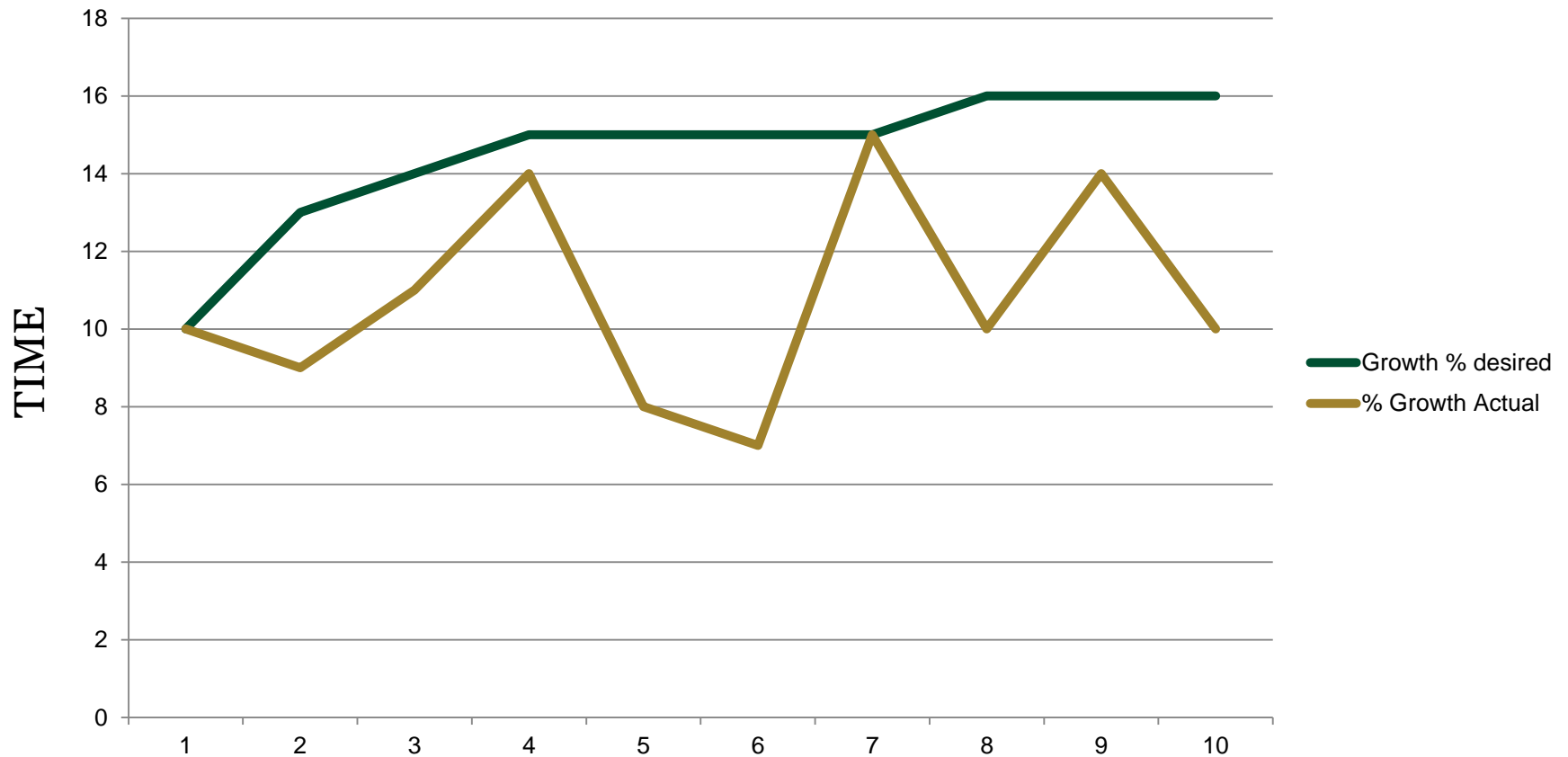
Expectations on ITS

- **ITS** has a **Baseline Budget**, but is expected to do every task thrown over the fence while still working from the **Baseline Budget**. This creates what I will reference as the "**All Inclusive Package**".
- **ITS** does not have all the skill sets required to achieve the **All Inclusive Package**.
- Priorities for the **All Inclusive Package** are not defined so it's a myriad of how's to get them to move up in priority.
- Current **Baseline Budget** is aligned to how we have done business in the past not currently executing or planning for the future.
- Customer Focus is diminished due to a React mode of operations - responding to shifting priorities described above.
- Research projects are: not funded for **ITS** support, expected to be done ASAP, take up extensive, memory, time, and Bandwidth, and there is no resource allocated to support them.

The Evolution of Cal Poly IT



How to Jump to the Future



What is an Enterprise Architecture

- Enterprise architecture is the organizing logic for business processes and IT infrastructure reflecting the integration and standardization requirements of the company's operating model. The operating model is the desired state of business process integration and business process standardization for delivering goods and services to customers
 - Enterprise IT design – the purpose of EA is the greater alignment between IT and business concerns. The main purpose of enterprise architecture is to guide the process of planning and design the IT/IS capabilities of an enterprise in order to meet desired organizational objectives. Typically, architecture proposals and decisions are limited to the IT/IS aspects of the enterprise; other aspects only serve as inputs.
 - Enterprise integrating – According to this school, the purpose of EA is to achieve greater coherency between the various concerns of an enterprise (HR, IT, Operations, etc.) including the linking between strategy formulation and execution. Typically, architecture proposals and decisions encompass all the aspects of the enterprise.
 - Enterprise ecological adaptation – the purpose of EA is to foster and maintain the learning capabilities of enterprises so that they may be sustainable. Consequently, a great deal of emphasis is put on improving the capabilities of the enterprise to improve itself, to innovate and to coevolve with its environment. Typically, proposals and decisions encompass both the enterprise and its environment.

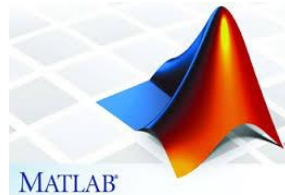
Notional Attributes



CORE

Core is:

- Utilized by entire campus
- Efficiency through economy of scale
- Effectiveness due to standardization



CORE +

Core + is:

- Customized configuration or delivery with ongoing support costs
- Utilized by some areas of campus
- Services operated for a one department that in turn provides service to entire campus



ABOVE
CORE

Above Core is:

- Highly customized, time intensive
- Requires extensive analysis and design beyond Core offerings
- Leverages Core and Core Plus

CORE SERVICES AND DELIVERABLES

- The core services and competencies of any delivery are people, time, contract and cost management. As such the following key criteria need to be identified and managed:
 - Service objectives and goals
 - Client's expectations
 - Operational constraints
 - Environmental and community constraints
 - Timing and programming
 - Project financial feasibilities
 - Regulatory environment
 - Economic and tender environment
 - Composition of project team
 - Supply chain management

Building ITS Core Values



Focusing on the Customer



To Keep Customers, ask the Platinum Question

- How are we doing?
- How can we get better?
- Regularly obtain, monitor, and measure your customer's opinion of how you're doing
- Keep on asking and improving
- Complacency breeds failure



Expected Results

- **Put Customers FIRST!**
- **Create a TRUE Baseline Cost Model**
 - **Define Core Services and deliverables**
 - **Reorganize ITS and other services based on the CORE**
 - **Construct a balanced Service Level Agreement (SLA) structure**
 - **Aligned skills and personnel to how we are executing CORE and planning for the future.**
- **Next Steps:**
 - Need to define and build a Research Model: not funded for **ITS** support, expected to be done ASAP, take up extensive, memory, time, and Bandwidth, and there is no resource allocated to support them.

Summary

- The World is changing dynamically **OUR** response needs to be as dynamic as the change
- ITS must be about Customer Service
 - Core
 - Define Skillsets and Organizational structure
 - Deliver what is promised to a “Gold Standard”
- Need for clear vision –
- Declare Cybersecurity a State wide Critical Asset
 - Additional funding specifically focused on those providing support to key Cyber Critical Initiatives
 - Connectivity to California Cybersecurity growth
 - Connectivity of Cybersecurity and Information Technology at the Educational level