



# Challenges for Modernization

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Chief Information Officer

Student Financial Assistance

U.S. Department of Education

"We Help Put America Through School"

JA-SIG Winter Conference

Destin, Florida, December 3, 2001

# The SFA Context



# SFA objectives

- Improve customer satisfaction
- Decrease unit costs
- Increase employee satisfaction

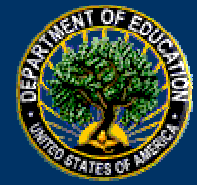


# The strategy

Use state-of-the-art information technology

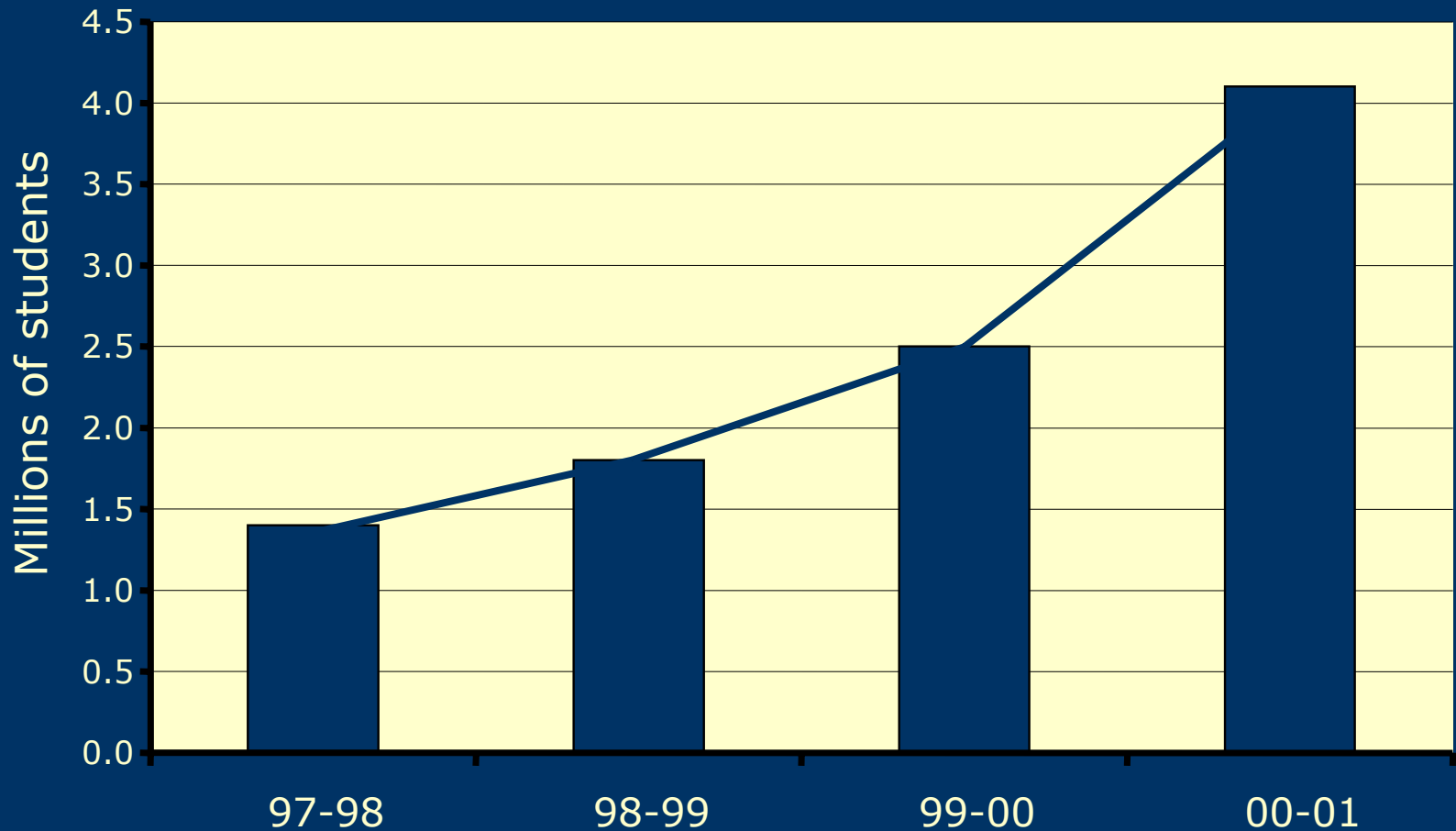
Simultaneously

- Improve the interface to customers and employees
- Design, implement new business processes
- Integrate legacy systems using an Enterprise Application Integration (EAI) middleware bus



# FAFSA On The Web

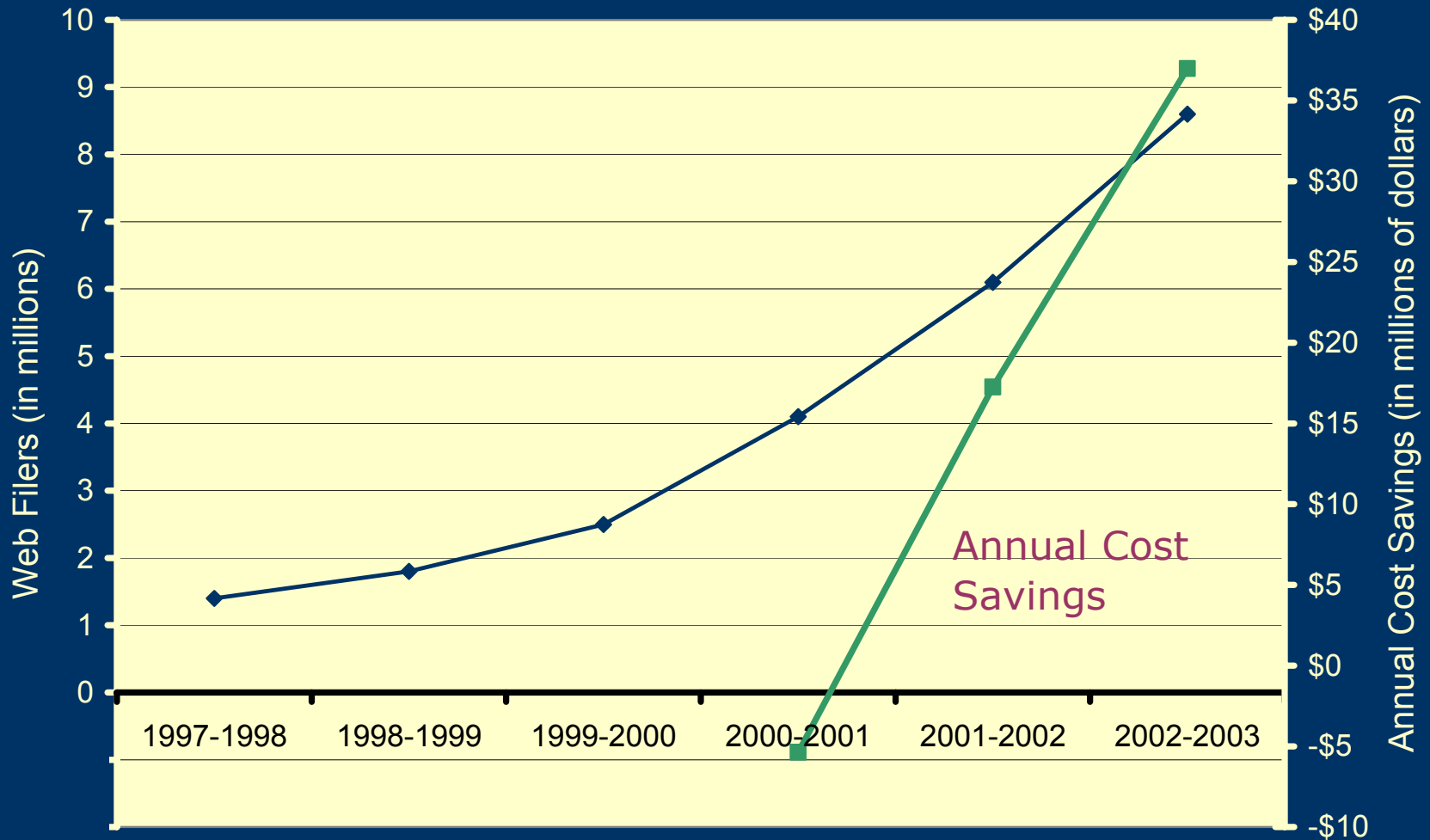
## FAFSA e-Filers





# Cost savings

FAFSA On the Web



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# External data exchanges

SFA business processes must be integrated with those of:

- Social Security Administration
- Immigration and Naturalization Service
- Selective Service System
- Internal Revenue Services
- Department of Health and Human Services

and

- 9,507 schools, colleges, and universities
- 7,000 lenders, servicers, guarantors, secondary markets, and agencies
- 15,300,000 college students

Data from Digest of Education Statistics 2000 and Projections of Education Statistics to 2011, NCES, 2001



# SFA Technology choices

Announced February 2000

XML - B2B Standard

- Business messages
- XML Schema
- XSL transformations (XSLT)

Java - Shared components

UML - Unified modeling, specifications

Announced March 2001

SOAP - business messaging

UDDI - directory services (for organizations)





# Model for school data exchanges

Tier	Information Technology Resources	Skills	Proposed Data Exchange
1	Yes	Yes	G2U real-time business messaging
2	Yes	No	G2U real-time, FTP batch, servicers
3	Web only	No	Servicers, SFA portals
4	No	No	SFA portals

Tiers from Ken Weiner, JA-SIG, Sep 2001



# School data exchanges

Tier	Schools	Enrollment	Federal Aid Recipients per Implementation
1	60	1,200,000	8,900
2	566	8,100,000	6,500
3	1,260	4,600,000	1,700
4	2,027	1,400,000	300

Technology estimates based on participation in professional events.  
Data from Digest of Education Statistics 2001, NCES, 2001  
Omits 5,437 non-degree granting schools.



# The opportunity

To reduce costs for both SFA and the schools, colleges, and universities, and to meet student service expectations, SFA needs to:

- Process all high-volume schools via real-time data exchanges
- Support servicers that aggregate volume
- Process all low-volume schools via the SFA portals

# The Technology Challenges for Modernization



# The skills challenge

How can SFA assist the schools, colleges, and universities to upgrade their skills in these technologies?

- XML documents and business messages
- XSL Transformations (XSLT)
- SOAP data transport
- UDDI directory services
- Java components



# The standards challenge

How can SFA encourage the implementation of industry standards such as IETF (Internet), W3C, and IFX (financial services industries)?

Should SFA have a role in technology training? What subjects, for whom, and how much?

What role should the Postsecondary Education Standards Council (PESC) play in standards?

Should PESC develop standards, coordinate development by others, or review, approve and promulgate standards?

What higher education standards are needed?



# The collaboration challenges

How effective in the SFA CIO "open book" Web site in communicating direction, plans and schedule, and specifications?

<http://extranet.sfa.ed.gov/>

How effective are the SFA technical reference manuals? Other documentation?


[http://extranet.sfa.ed.gov/cio/it\\_services/initiatives/documentation/](http://extranet.sfa.ed.gov/cio/it_services/initiatives/documentation/)

How valid is SFA's perspective on school capacity for and interest in change?



# SFA Extranet home page

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*Student Financial Assistance* November 23, 2001

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## Partner Extranet

Welcome to SFA's Extranet gateway. This is where we give you access to review strategic plans and initiatives currently in progress. We look forward to serving you through this new facility.



New! Learn about the Student Aid Process from [Front 2 Back on the Web](#)

[Accessibility](#)






# SFA Technology Policy Guide

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November 23, 2001

**SFA Technology Policy Guide**

The [SFA Technology Policy Guide](#), a document which outlines the technology policies and standards of the U.S. Department of Education Student Financial Assistance (SFA) modernization program, is ready for review and comment.

**You can view the comments of others and add your own comments on-line. Just click on any one of images that look like this:**

 *Comments*

These images appear throughout the document beside major paragraphs and sections.

- CIO
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# Guide with user comments

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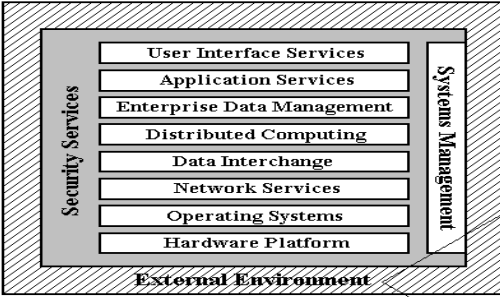
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## 4.11 External Environment Comments



The diagram shows a central box labeled "External Environment" containing a list of services: User Interface Services, Application Services, Enterprise Data Management, Distributed Computing, Data Interchange, Network Services, Operating Systems, and Hardware Platform. This central box is flanked by "Security Services" on the left and "Systems Management" on the right. A separate box labeled "External Connections" is shown to the right, with a line connecting it to the "External Environment" box.

This section addresses external environment technologies and standards outside the s those technologies and standards extending beyond the physical and media access coi issues involved with WAN and transmission systems not normally encountered by SF

### 4.11.1 External Connections

WANs are divided into two parts. The first is defined as trunk technology and switch these services rather than invest in wide-area equipment and cable. The second addre loop," meaning the reach from the central office to the business or residence. In many

#### 4.11.1.1 Technology Policy

The EDNet Metropolitan Area Network (MAN) consists of five major buildings: ROB; facilities are connected through Verizon's Asynchronous Transfer Mode (ATM) netw 155 Mbps OC-3 link. The major MAN buildings are interconnected via ATM interface October 1999. Beyond the main facilities, are also connected via 100Mbps

Comments For Paragraph 4.11 And Its Subparagraphs - Microsoft Int...

### Previous Comments

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Submitted by:



# For financial aid professionals

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# Future campus technologies

- How pervasive is wireless computing now on campus? What will it be in a few years?
- Are students adopting Web-enabled cellphones?
- What are colleges and universities doing to support the use of wireless devices and Web-enabled cellphones with their Web presence?
- How rapidly are colleges and universities implementing portals? What kinds and what are their characteristics?



# When will colleges and universities

- Be able to process XML/SOAP business messages?
- Be able to implement a "standard" portlet or channel in their Web presence?
- Support WAP/WML devices?
- Implement remote authentication using Shibboleth and/or SAML?

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# Questions and Answers

Thank you

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# School data exchanges

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