Agenda

• Goals and Objectives
• Elements of Success
• Multiyear Criticality
• Efforts and Last Year’s Funds
The CSUDH Technology Enabled End State

Focused High-touch Digital Engagements

Focused High-touch In-person experiences
Moving from Thermometer to Thermostat

A thermometer **reads** the temperature.

A thermostat **sets** the temperature.
Building the Technology Strategy Together

• **Budget to the Plan**
  - The days of planning based on budget are gone
  - We need to plan and then budget to the plan

• **True-up & Growth**

• **Core Considerations**
  - University and cross divisional collaboration
  - Hidden technologies and costs in other areas
Building a University Technology Budget

Baseline Need
- 2014 Deficit: $1.3M
- Operational & Group 2 Equipment: $1.25M
- Baseline: Staffing, PD, Cameras, Wi-Fi, Network, CampusLabs, Compute Refresh, Web Migration, etc.

One-time Need
- 2014 Deficit: $510K

ESTIMATES

<table>
<thead>
<tr>
<th>Year</th>
<th>Baseline Need</th>
<th>One-time Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018-19</td>
<td>$3.62M</td>
<td>$2.55M</td>
</tr>
<tr>
<td>2019-20</td>
<td>$2.75M</td>
<td>$2.94M</td>
</tr>
<tr>
<td>2020-21</td>
<td>$3.63M</td>
<td>$2.04M</td>
</tr>
<tr>
<td>2021-22</td>
<td>$2.43M</td>
<td>$660K</td>
</tr>
<tr>
<td>2022-23</td>
<td>$1M</td>
<td>$100K</td>
</tr>
</tbody>
</table>

University Technology
- Baseline: 2014 True-up, Group 2 Equipment, Deferred Maintenance, Growth, & Transformative Baseline Budget
University IT Governance

EXTERNAL IT

Committees, Taskforces and Existing Bodies

External Bodies

Campus Tech User Group

Auxiliary

Academic Senate/ Senate Exec

ASI

Academic Technology Committee*

Data Governance

End User Computing

Mobile Apps/Web

End User Computing

Information Security Risk Management

Smart Campus

Technology Advisory Committee*

Accessible Technology (ATI)

Division and Colleges

Philanthropic Board

Cabinet

Foundation Board

Division and Colleges
University Technology Budget Model

The “2014 Base Budget”

Four dimensions that cover the range of university activities

1. Core Infrastructure Refresh Cycle (Repeating One-Times vs Baseline Set Aside)
2. Getting to Even (OPS) (True-up Existing Units)
3. Human Resources
4. Digital Transformation (Budget Asks / Cloud Costs)

Natural Growth
Annual Contracts 10-12% Increases
Salary Compression
Cloud Migration

Hardware
Software
Rollout Refresh
HVAC

Compliance
UEPA, DHTV, & Repro
Unfunded Enterprise Software

App & Dev Operations
Training & Skills Building
Creating CSUDH Analyses

Define Key Questions, Track KPI

Track trends over time

Manage enrollment
We need to leverage and move from our current...A set of LEGACY practices independently run
• Strategic enrollment practices beginning to move away from old methods

...Point systems without integrative design

...Limits of data, process, or flexibility

...Needs to be AI interpretable

Systems include
• EAB
• EMP
• Peoplesoft
• OnBase
Core Engagement Platforms

- **Web/Mobile**
  - Web
  - Portal
  - App

- **Data Analytics**
  - Point of Entry
  - Data Flow
  - Outputs

- **Digitization/Process**
  - Form
  - Workflow
  - Authorization
  - Ticketing

- **CRM**
  - Internal Repository
  - External Repository

- **Data Warehouse**
  - Lake
  - Added Sources

- **Smart Campus**
  - Application Process
  - Integration Hardware
  - Network
Mobile Platform Phases

**Phase 1 (Fall 2018)**
- Convert core mobile app info (map, directory, CSU Red Folder, etc...)
- New student transactions on key PS functionality (eg. add, drop, list classes, etc.)
- Student focus groups & Mobile Governance

**Phase 2 (Spring/Summer 2019)**
- Convert remaining existing apps that meet criteria
- Add additional student functionality
- Integrate additional applications onto mobile platform
- Configure current myCSUDH Portal components onto mobile platform
- Merge current Portal and Mobile into a new single myCSUDH Mobile friendly Portal

**Phase 3 (Summer/Fall 2019)**
- New mobile apps as available

**Future Phases**
- HR PageUp Recruiting
- Employee HR Self-Service
Digitization: Ad Astra Scheduling

• The production environment has been configured
• IT is currently working on the API interfaces from Ad Astra to PeopleSoft and EMS (Events Scheduling)
• IT and AA working to identify appropriate data elements and presentation
Smart Campus: Computer Refresh

- Permanent/Tenure/Tenure Track Faculty, Full-time Adjunct Faculty, MPPs, receive BOTH laptop and desktop.

- Full Time Permanent State Employee Staff, receive desktop only.
Smart Campus: Infrastructure

- Reexamining DAS
- Repositioning video contract (EBS)
- Cable plant restructure to providers
Stage 2: Securing Access to Campus Resources

- Introduced Password Length, (12 Character)
- More Frequent Password Reset Times (120 Days)
- Complexity
- Deployed Cloud Service with Installed Desktop Client
- Assuring Compliance and Security, in an ever more complicated Digital World

Password Reset:
- Password Known
- Security questions: Password Not remembered.

Multifactor Authentication

System Protection (TRAPS)

Two-Factor Authentication

Password Complexity

Desktop Updates

Completed March 2018

Self-Service Password Reset

Completed February 2018

Wireless Consolidation (eduroam)

December 2018

Global Protect VPN

Testing

SCHEDULE

Purchased

Testing

ManageEngine

OneLogin

Shift from Juniper VPN to Palo Alto VPN

Fully support eduroam for All Authenticated and Affiliated users.
Guest Wireless access registration
2018-2019 Multiyear Projects to Consider

- Funding for One Card (Phase I)
- Funding for Video Cameras (Device, Transmit, Storage)
- Funding for Wi-Fi (Device and Density)
- Funding for LMS migration (Application and Store)
# 2017-2019 UBC Technology Requests

<table>
<thead>
<tr>
<th>Division/Unit</th>
<th>Priority Rank</th>
<th>Div/Collge</th>
<th>Commitment and description</th>
<th>Strategic Plan Goal/Objective</th>
<th>Personnel Costs</th>
<th>Salary Related Benefits</th>
<th>OE&amp;E</th>
<th>AADHT Baseline</th>
<th>AADHT One-Time</th>
<th>LOTTERY</th>
<th>STUDENT SUCCESS BASELINE</th>
<th>STUDENT SUCCESS ONE-TIME</th>
<th>Total Request Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT</td>
<td>IT1</td>
<td>InfoTech</td>
<td>Data Analytic, App. Development &amp; Digital Presence (Year 1 of 2)</td>
<td>Strategy 3.C.2: Assess and improve the effective use of instructional technology tools</td>
<td>2,500,000</td>
<td>-</td>
<td>1,250,000 in '17-'18 &amp; 1,250,000 in '18-'19</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IT</td>
<td>IT2</td>
<td>InfoTech</td>
<td>Campus IT Refresh (Loan/Debt Service)</td>
<td>Strategy 3.C.2: Assess and improve the effective use of instructional technology tools</td>
<td>410,000</td>
<td>-</td>
<td>410,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IT</td>
<td>IT3</td>
<td>InfoTech</td>
<td>Security Investigation Mgr</td>
<td>Strategy 3.C.2: Assess and improve the effective use of instructional technology tools</td>
<td>89,404</td>
<td>45,808</td>
<td>135,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IT</td>
<td>IT4</td>
<td>InfoTech</td>
<td>ATI Coordinator</td>
<td>Strategy 3.C.2: Assess and improve the effective use of instructional technology tools</td>
<td>79,470</td>
<td>40,530</td>
<td>120,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IT</td>
<td>IT6</td>
<td>InfoTech</td>
<td>Incubator</td>
<td>Strategy 2.B.4 Implement High Impact Practices (HIPs)</td>
<td>80,000</td>
<td>40,800</td>
<td>120,200</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>250,000</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Information Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>248,874</td>
<td>126,526</td>
<td>3,639,200</td>
<td>2,755,000</td>
<td>410,000</td>
<td>-</td>
<td>250,000</td>
<td>-</td>
<td>3,415,000</td>
</tr>
</tbody>
</table>
Why Fund these Proposed Request?

- Raises all boats on campus - impacts felt across university
- Similar to faculty hiring, moves key staffing hiring forward as stated in Strategic Plan
- The amounts are staged to have maximal impact under supportable annual amounts
- Addresses GI2025, Web Presence, and Data and Analytic core needs foundational to university operation
- Addresses emergent compliance and audit concerns
- Funds a innovative and high demand co-curricular practice around ideation to market
University Technology Infrastructure

Application Development

Digital Presence

University Data & Analytics
## Technology Infrastructure – Wave 1 (’17-18)

<table>
<thead>
<tr>
<th>Position Description</th>
<th>Allocated Baseline Salary</th>
<th>Allocated Benefits</th>
<th>Impacted Team</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVP, UEPA (MPPIII)</td>
<td>$150,000.00</td>
<td>$76,500.00</td>
<td>UEPA</td>
<td></td>
</tr>
<tr>
<td>Data Scientist (Analyst / Programmer - Expert)</td>
<td>$130,000.00</td>
<td>$66,300.00</td>
<td>UEPA</td>
<td></td>
</tr>
<tr>
<td>Web / Mobile (Analyst / Programmer)</td>
<td>$90,000.00</td>
<td>$45,900.00</td>
<td>Digital Presence</td>
<td></td>
</tr>
<tr>
<td>PS HR/FIN/CS Developer (Analyst / Programmer - Career)</td>
<td>$90,000.00</td>
<td>$45,900.00</td>
<td>Applications Development</td>
<td></td>
</tr>
<tr>
<td>OnBase Developer (Analyst / Programmer - Career)</td>
<td>$90,000.00</td>
<td>$45,900.00</td>
<td>Applications Development</td>
<td></td>
</tr>
<tr>
<td>Business Analyst FIS/HR (Analyst/Programmer - Career)</td>
<td>$70,000.00</td>
<td>$35,700.00</td>
<td>Applications Development</td>
<td></td>
</tr>
<tr>
<td>Business Analyst ERP Systems (Analyst/Programmer - Career)</td>
<td>$70,000.00</td>
<td>$35,700.00</td>
<td>Applications Development</td>
<td></td>
</tr>
<tr>
<td>Public Affairs/Communications Specialist II</td>
<td>$55,000.00</td>
<td>$28,050.00</td>
<td>Digital Presence</td>
<td>VPUA positions</td>
</tr>
<tr>
<td>Media Production Specialist III</td>
<td>$80,000.00</td>
<td>$40,800.00</td>
<td>Digital Presence</td>
<td>VPUA positions</td>
</tr>
<tr>
<td></td>
<td><strong>$825,000.00</strong></td>
<td><strong>$420,750.00</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,245,750.00</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Technology Infrastructure – Wave 2 (18-19)

<table>
<thead>
<tr>
<th>Position Description</th>
<th>Allocated Baseline Salary</th>
<th>Allocated Benefits</th>
<th>Impacted Team</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY Adds (2018-2019)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Design Presentation (Analyst / Programmer)</td>
<td>$ 65,000.00</td>
<td>$ 33,150.00</td>
<td>UEPA</td>
<td></td>
</tr>
<tr>
<td>Data Scientist (Analyst / Programmer)</td>
<td>$ 120,000.00</td>
<td>$ 61,200.00</td>
<td>UEPA</td>
<td></td>
</tr>
<tr>
<td>Web Process (Analyst / Programmer)</td>
<td>$ 70,000.00</td>
<td>$ 35,700.00</td>
<td>Digital Presence</td>
<td></td>
</tr>
<tr>
<td>Workflow Repository (Analyst / Programmer)</td>
<td>$ 90,000.00</td>
<td>$ 45,900.00</td>
<td>Applications Development</td>
<td></td>
</tr>
<tr>
<td>Business Analyst</td>
<td>$ 90,000.00</td>
<td>$ 45,900.00</td>
<td>Applications Development</td>
<td></td>
</tr>
<tr>
<td>Business Analyst</td>
<td>$ 90,000.00</td>
<td>$ 45,900.00</td>
<td>Applications Development</td>
<td></td>
</tr>
<tr>
<td>Business Analyst</td>
<td>$ 70,000.00</td>
<td>$ 35,700.00</td>
<td>Applications Development</td>
<td></td>
</tr>
<tr>
<td>Business Analyt</td>
<td>$ 80,000.00</td>
<td>$ 40,800.00</td>
<td>Applications Development</td>
<td></td>
</tr>
<tr>
<td>Public Affairs/Communications Specialist I</td>
<td>$ 55,000.00</td>
<td>$ 28,050.00</td>
<td>Digital Presence</td>
<td>VPUA positions</td>
</tr>
<tr>
<td>Public Affairs/Communications Specialist II</td>
<td>$ 80,000.00</td>
<td>$ 40,800.00</td>
<td>Digital Presence</td>
<td>VPUA positions</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 810,000.00</strong></td>
<td><strong>$ 413,100.00</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 1,223,100.00</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
State of UBC Approved Funding 2017-18

- Data Analytics: 2 Positions
  - AVP UEPA - FILLED
  - Data scientist (analyst/programmer) – PD Review

- Digital Presence: 3 Positions
  - Web/mobile analyst/programmer - FILLED
  - Communications specialist - VPUA positions
  - Media production specialist - VPUA positions

- Applications Development: 4 Positions
  - Peoplesoft developer (analyst/programmer) – Contract to hire method (target: Jan. ‘19)
  - Onbase developer (analyst/programmer) – Developing salary offer recommendation from HR
  - 2 Business analysts
    - 1 accepted condition offer/pending background clearance
    - 1 in negotiations/conditional offer
2017-18 Roll Forward Funds – Planning

Baseline Deficit: $1M

Information Security
- End Point: $50,000
- Forensics: $15,000

Smart Campus
- One Card: $100,000
- Security Cam: $200,000
- Wi-Fi: $200,000
- VOIP: $50,000
- O365: $50,000
- LCH $180,000
- Ad Astraa planning
- Ad Astraa HESI

University Effectiveness Planning & Analytics
- Tableau
- EMSI
- Data Dashboards
- GIS
- Data Services: $50,000
- University Base Map (GIS): $50,000

Digital Production
- Modo Labs
- Appian
- Reprographics: $25,000
- Head End HD: $350,000
IT  Deferred Maintenance : Funds TBD

Construction and Impacts on Fiber, Re-Routes and Expansion
New Buildings (Internal/External)
QUESTIONS?