

## ITRP Refresh Program Charter

### 1. Introduction

In 1994, the California State University pioneered a system-wide initiative to leverage technology in support of its academic mission, the Integrated Technology Strategy (ITS). The goal of the ITS is to “enable CSU students, faculty and staff to communicate, to teach, to learn and to research, to use information resources, and to conduct the business of the University at any time, with anyone and in any place.” The ITS was developed to support four main areas of success: excellence in teaching and learning, the quality of the student experience, administrative productivity and quality and personal productivity. Achieving success in these four areas requires a network infrastructure that consists of hardware, software, training and support.

To address the need for a stable and robust network infrastructure, the CSU undertook a system-wide network infrastructure upgrade project as a component of the ITS, known as the Technology Infrastructure Initiative (TII). The TII consisted of two stages; Stage 1 was the design and construction of the physical plant upgrade needed to house the new infrastructure while Stage 2, also known as the Infrastructure Terminal Resources Project (ITRP), addressed baseline equipment, software and user training required to design and maintain a robust network infrastructure.

The TII was not intended to be a one-time upgrade but rather an ongoing effort to maintain campus baseline network infrastructure as technology advances and user needs evolve. To that end, CSU has planned for a refresh of each campus network infrastructure on a cyclical basis to ensure that the network infrastructure continues to keep pace with technology and meet the changing needs of CSU students, faculty and staff. This endeavor is known as the ITRP Refresh Program and the first cycle is called ITRP 2.

### 2. Program Scope

The ITRP Refresh Program effort to maintain baseline intra-campus IP networks is comprised of (1) the replacement of aged network equipment in state-owned buildings, (2) the upgrade or addition of equipment and software to maintain currency with appropriate network technology advances and evolving user needs, (3) training for the principal network campus staff that support the campus networks and (4) maintenance coverage of core network devices.

The program will cover the 24 CSU intra-campus networks (the Chancellor’s Office is considered a campus for the purposes of this document), including any state-owned, off-site center networks that were included in the original ITRP implementation.

### 3. Program Goal

The goal of the ITRP Refresh Program is to meet the evolving needs of CSU students, faculty and staff by providing a stable, robust, secure baseline IP network infrastructure that serves as the foundation for enabling the CSU Integrated Technology Strategy Outcomes; personal

productivity, excellence in learning and teaching, quality of student experiences and administrative productivity and quality.

#### **4. Program Objectives**

The objectives of the program are to:

- a) Continue to achieve financial economies of scale and achieve operational efficiencies by working as a system.
- b) Continue to meet the evolving needs of students, faculty and staff by maintaining a stable, robust and secure baseline IP network infrastructure on every campus.
- c) Provide training to core network staff to allow for the effective and efficient management of the ITRP network.
- d) Maintain standard operating environment of software and hardware for effective and efficient management.

#### **5. Program Components**

The program components are standardized network architecture, design, implementation, deployment and operation practices for campus network infrastructures. These components are detailed in the Network Baseline Standard Architecture and Design document created by the CSU's Network Technology Alliance (NTA).

#### **6. Timeline**

The Refresh program plan encompasses an eight-year period that includes two refresh cycles. The first cycle will begin in fiscal year 06/07 and end in 09/10 while the second will begin in 10/11 and end in 13/14. Campuses will be placed within the two cycles based on their original ITRP placement unless circumstances arise that require a change. For example, a campus that documents network traffic that is running close to their upper capacity limit and feels that their refresh implementation is too distant to address the issue in a timely way may request that their implementation begin sooner. It is presumed that there will be further refresh cycles after the initial two.

#### **7. Financial Scope**

The program is expected to cost between \$17 million and \$22 million per year, depending on the ITRP finance payment schedule and the number and size of campuses implementing in a given year.

#### **8. Assumptions**

- a) It is assumed that all new construction will be built to Telecommunications Infrastructure Planning Standards (TIP). If new buildings are not deployed to TIP Standards, they will be refreshed to the level of the active connections of existing network equipment.
- b) Data supporting the performance, availability and security requirements will determine the level of refresh on a given campus.
- c) Systems integrator services will be utilized to support the program, and as with initial ITRP implementations, the program will be centrally managed by the Chancellor's Office.

- d) Campus refresh budgets are calculated partly on the baseline bill of materials and not the final master bill of materials utilized in ITRP 1 that may have included above baseline accommodations.
- e) Campuses will be trading in 100% of the ports that will be replaced during their refresh implementation, allowing CSU to receive a discount on the new equipment.
- f) The baseline standards will continue to be updated to maintain currency with technology advances.
- g) The Chancellor's Office Cisco 5% In Kind Credit will continue to accrue as a result of ongoing purchases associated with the ITRP refresh program. The resulting accrual will be utilized to subsidize system-wide costs such as training and maintenance.
- h) All State-funded facilities on a campus existing at the time of refresh will be included. New construction since the previous cycle will only be eligible for inclusion if the campus refresh occurs two or more years subsequent to completion of that construction.
- i) As reviews and updates of the CSU's Baseline Campus Network Standards are an ongoing process performed under the auspices of the University's advisory bodies (NTA and ITAC), any resulting changes in those Standards will be incorporated in the next ensuing refresh process.
- j) Current budget forecasts of price per port will remain generally the same, except for small inflationary corrections.

## **1. Critical Success Factors**

- a) Continuing executive level sponsorship is vital to ensuring program success.
- b) Adequate financial resources must be committed to the project.
- c) A robust training and support infrastructure must be delivered in a timely manner to network staff both during and following implementation.
- d) Campuses will need to utilize tools to properly assess network capacity so that the Refresh level is certain to meet campus needs.
- e) More risk factors will be identified and added to this document as roll-out scenarios and other elements of the program are further defined.