**Common Good Services Philosophy**

For the purpose of Operational Oversight Committee projects that depend on this philosophy, "Common Good Services" refers to that set of basic, non-specialized computing resources that is beneficial for nearly all members of the Purdue community. Common Good Services are those basic information technology services that most community members would agree are critical to conducting business (academic, business, student, and research) at a modern research university. These services include:

- Networking capability (wired and wireless data capabilities and associated infrastructure)
- Voice services (phone, voicemail, associated infrastructure)
- Data storage and back up services

Information technology Common Good Services are those services that all community members reasonably expect and that are “always on.” The services are not, and do not need to be, specialized for a particular department. They are most efficiently provided by a single provider. To use an analogy, Common Good Services are similar to the types of basic infrastructure services that citizens expect their communities to provide: roadways, public schools, drinking water, and waste infrastructure.

**Current Billing Model for Telecommunications Services**

Currently, Purdue spends approximately $15M per year to provide telecommunications (voice, data and wireless) services throughout the University. There is very little flexibility in this amount. The current cost model for these telecommunications services, which is based on a traditional, cafeteria model, does not adequately recover Purdue’s cost to provide the services. Under the current model, costs are assessed as follows:

- Voice services (phone, voicemail, and related infrastructure): Charges assessed to departments under an approved costing model, self-supporting
- Wired data connection (including infrastructure): Charges assessed to departments under an approved costing model, not self-supporting
- Wireless data connection (including infrastructure): Provided free of charge to departments and students

The costs involved in providing all telecommunications services described above, and their associated infrastructure, are $2M more per year than the collected charges for voice services and the wired data connection. The excess costs (including costs associated with the free provision of the wireless network) are covered via a $2M central subsidy from the University and cost shifting within ITaP (thus, in addition to a central subsidy, there are cross subsidies used to fund the total Purdue cost of telecommunications services). To complicate matters, these technologies have changed at a faster pace than the amortization of the financial instruments used to pay for campus investments in these technologies. Purdue is still paying for

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1 The term Common Good Services was coined by the University of Minnesota. We wish to acknowledge their work in this area as a basis for our own proposal.
telecommunications switch equipment even though campus reliance on voice services has greatly waned.

The current cafeteria model does not promote optimization efforts that result in cost savings to the University. Under the current model, when a department attempts to optimize its local costs, either another department bears the burden of that action through a subsequent increase in the cost of these services, or the organization as a whole must provide a subsidy to avoid such cost increases. This local optimization is happening today at Purdue. Many departments are making local decisions to cut information technology costs (such as avoiding wired network connection fees by employing internal switches and routers to use the wireless network, or choosing not to provide employees with phones and voicemail access). Even if these cuts are done on a voluntary basis via agreement from departmental constituents, eliminating these services and their associated costs at the department does not lower the University’s overall costs of providing these services. Where these cuts are done on an involuntary basis without agreement from departmental constituents, it leaves users without access to basic information technology services. Regardless of the motivation, the resources taken in aggregate are not allocated in the most efficient manner.²

### Common Good Services Billing Model for Telecommunications Services

Under the Common Good Services billing model, all departments pay the same amount per person for the same basic information technology services.³ Common Good Services are prepaid by each department as part of the cost of doing business. They are billed as a bundle, are not negotiable, and cannot be reduced voluntarily by individual departments.⁴ As such, a Common Good Services model attempts to create efficiency for Purdue as a whole by:

- Ensuring all departments have access to basic information technology services
- Ensuring cost recovery for information technology services
- Ensuring organizational optimization of information technology services
- Ensuring effective oversight of the Common Good provider to ensure operational efficiency and lowest possible price in the provision of these services

Organizational optimization is achieved because Purdue can take advantage of economies of scale to efficiently provide Common Good information technology services at a lower cost to the institution (and thus to departments) and all end users have access to the basic information technology services needed to conduct business.

The Common Good Services model allows for operational efficiency as well. Common Good Services are provided by the central IT organization and do not need to be specialized for a

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² The distribution strategy employed in the current state is best described by Ken Arrow’s “Impossibility Theorem.” Simplified, that theorem states that the best preference for the group cannot be achieved when individuals are acting according to their own preferences.
³ The Operational Oversight Committee studying this issue has proposed a Common Good Services charging model for Purdue, and is currently testing the results of their model. Their report can be viewed at: [http://www.purdue.edu/cio/docs/FINAL_OOCReport.ITNSCommonCharg.pdf](http://www.purdue.edu/cio/docs/FINAL_OOCReport.ITNSCommonCharg.pdf)
⁴ To continue the community analogy, another way to think of Common Good Services is to compare it to paying property taxes. All members of a community pay taxes on services such as public safety, schools, and public improvements. These are common good services and the funding model proposed here is similar.
particular department. They are the minimum information technology services that departments and individuals expect. Through moving Common Good Services to a centralized model, departmental IT groups can focus on the specialized products and services that their constituents demand. The Common Good Services approach promotes the efficient use of information technology resources and eliminates redundancies currently present between centralized and decentralized IT departments.