Request for Technology Fee Funds: FY18
NOTE: A separate request should be made for each initiative.

I.   **Department Number/Department Name:** | 360 | College of Computing

Title of Request *(please be brief)*:   Individualized Virtual Machines for Students

Amount of Request *(formula from detailed budget below)*:   **$27,472**

Are there any installation/renovation costs associated with this request?   ☐ **Yes**   ☑ **No**

If "Yes" then indicate the source of approved funding:

(Note: Tech Fees are not allowed for installation/renovation)

Executive Summary of Request (100 words or less):

To provide a resource for graduate and high-level undergraduate students to be able to have individual, customized VMs to aid in their academic endeavors. We aim to fill a gap between shared instructional resources and funded research environments for students to co-manage VMs to better enable flexible and specialized services for their use.

Specific class and/or lab initiative(s) if applicable: Graduate students and upper class Undergraduates

Contact person for this request (incl. phone #):   David Mercer (5-2518)

Indicate priority per department if applicable: Number ____ of ____

Indicate priority per college or unit: Number __5__ of __9__

II.   Impact on Students - Provide course title, course number, and anticipated enrollments:

Titles/Numbers of Course(s)   see Section III (cont) for impacted courses

Anticipated Enrollments

Graduate:	705	◉ per sem ○ per year
Undergraduate:	1,149	○ per sem ◉ per year
Total:	1,854	(select one)

NOTE: Other impacts on students should be described in narrative.

III.   Narrative - *Provide narrative justification for your intended use of the technology fee funds. Include narrative on how the education or research of the students will be enhanced. Also include how the request aligns with the Strategic Plan of Georgia Tech. Continue in the block below if necessary.*

With the introduction of the online Master's degree in Computer Science, the College of Computing deployed a large virtualization cluster to better distribute resources in a scalable and redundant manner. Virtualization results in significant overall equipment savings by allowing better utilization of a pool of physical servers and minimizing unused computing cycles. Virtualized server environments are also easier for technologists to manage, resulting in higher server availability and flexibility to accommodate specialized faculty requests. With this increased flexibility and agility, we gain the ability to provide more resources to students in a collaborative manner. Virtualization plays to the heart of the the Institute's Strategic Plan objective to "establish best business and administrative practices", maximizing the work that both the equipment and those supporting it are able to do for the cost.

(continued)

IV.   Detailed Budget - Requested Items by Category   *List separately any equipment, software, and other allowable expenses (see Tech Fee Guidelines). There is a formula in the "total column" that multiplies the number of items times the unit price. You may enter a figure into the total column if the unit pricing is not applicable. If you need additional rows, contact the Budget Office to receive a modified form.*

Supporting documentation is required *- Include price justification in some form, such as quotations, published price lists, etc. as a separate PDF attachment. All supporting information should be in a single PDF.*

	Proposed Number of Items	Estimated Price per Unit	Total ($)
Virtual Machine Servers	4	$6,856	$27,422
Cables	1	$50	$50
			$0
			$0
			$0
Total *(linked to the total amount of request line above)*			$27,472

Please return form via e-mail in Excel format to: techfees@business.gatech.edu. Supporting information only in a PDF file.

III. **Continuation of narrative justification, if necessary**

We are proposing an addition and expansion to the existing virtualization environment at the College of Computing to enable us to allocate virtual machines (VMs) to students and student groups for projects related to their academic advancement. Because of the emphasis these project classes have on "entrepreneurial thinking", most resource requests do not fit with the more generalized instructional resources that the College currently offers. These VMs will allow students to create environments for their academic efforts that can be tuned to their own processes, providing much better results than if they had needed to adjust their ideas to fit a more generalized solution. Our particular hope is that this resource will provide a better environment for our undergraduate capstone design courses to work in, allowing them to focus more on good projects than identifying the resources on which to build them.

* Impacted Course -
CS3311, CS3312, CS4699, CS4742, CS4792, CS4911, CS4912, CS4980, all on-premise Graduate students