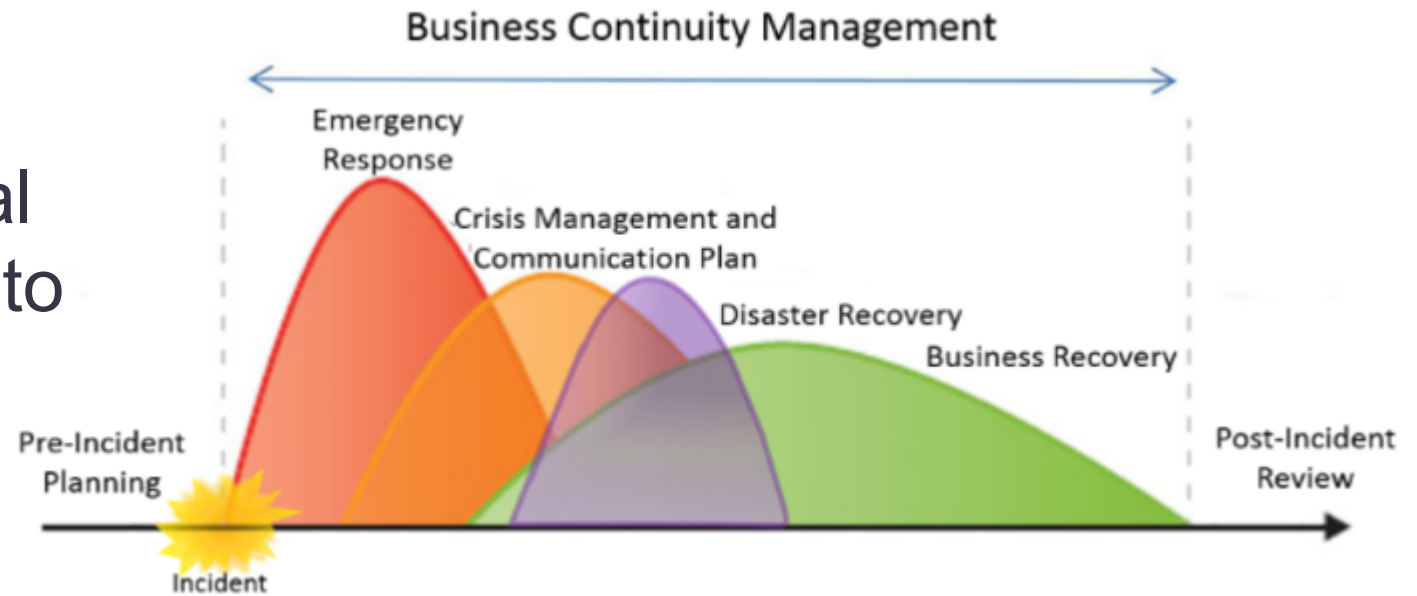


RESPONDING TO THE NEW MADRID EARTHQUAKE

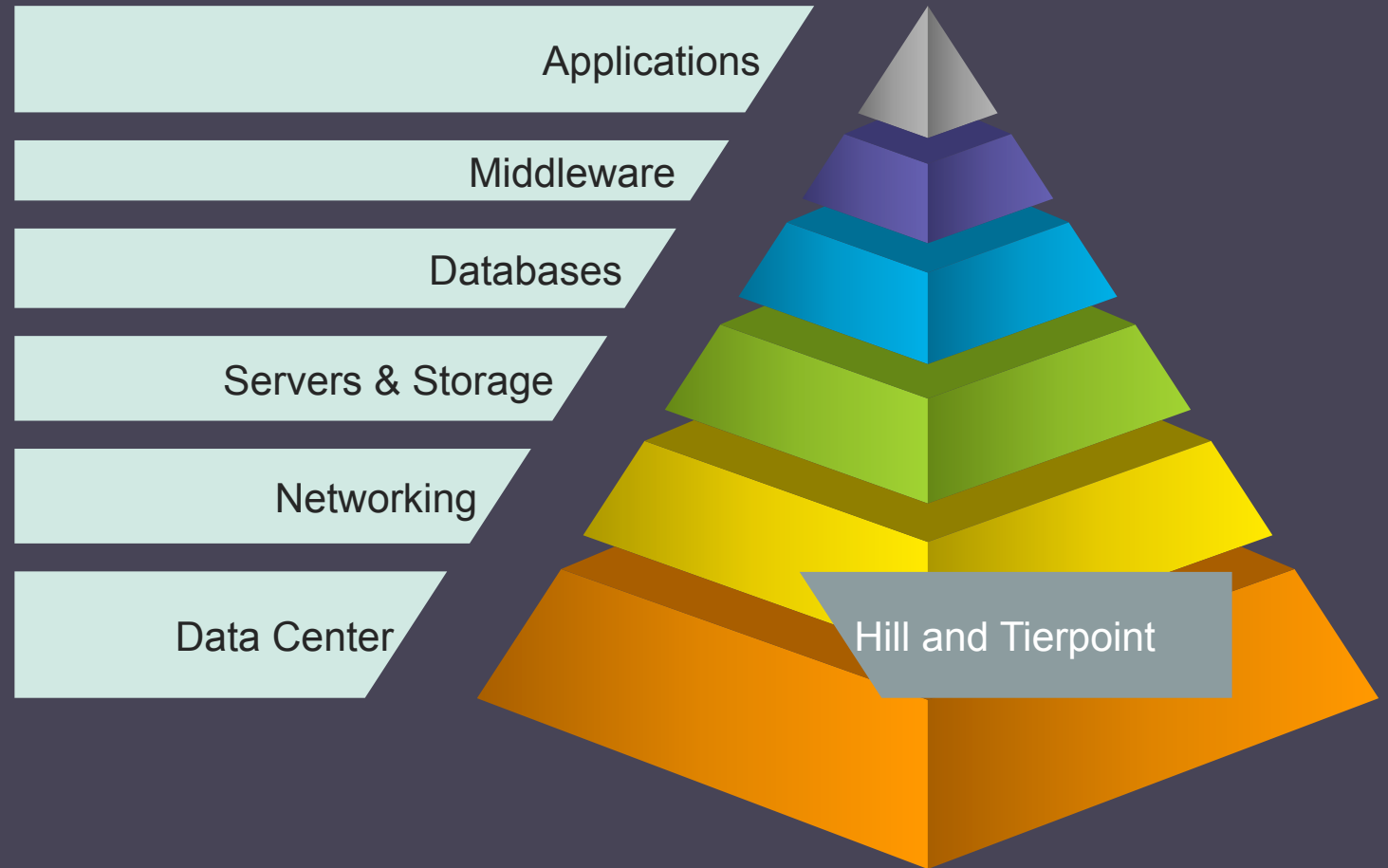
John Lutz

October 9, 2018

KEY ASSUMPTIONS



VUIT SERVICES: A PRIMER



Hill Data Center



TierPoint Data Center



NEWS

How 9/11 changed data centers

One key difference: Greater distances between backup and recovery facilities



By Patrick Thibodeau

Senior Editor, Computerworld | SEP 11, 2011 8:00 AM PT

TENNESSEE PROCESSING CENTER

NASHVILLE, TN

Tennessee Processing Center
Bank of New York
Nashville, TN
Project Size 160,000 SF

Project Description:

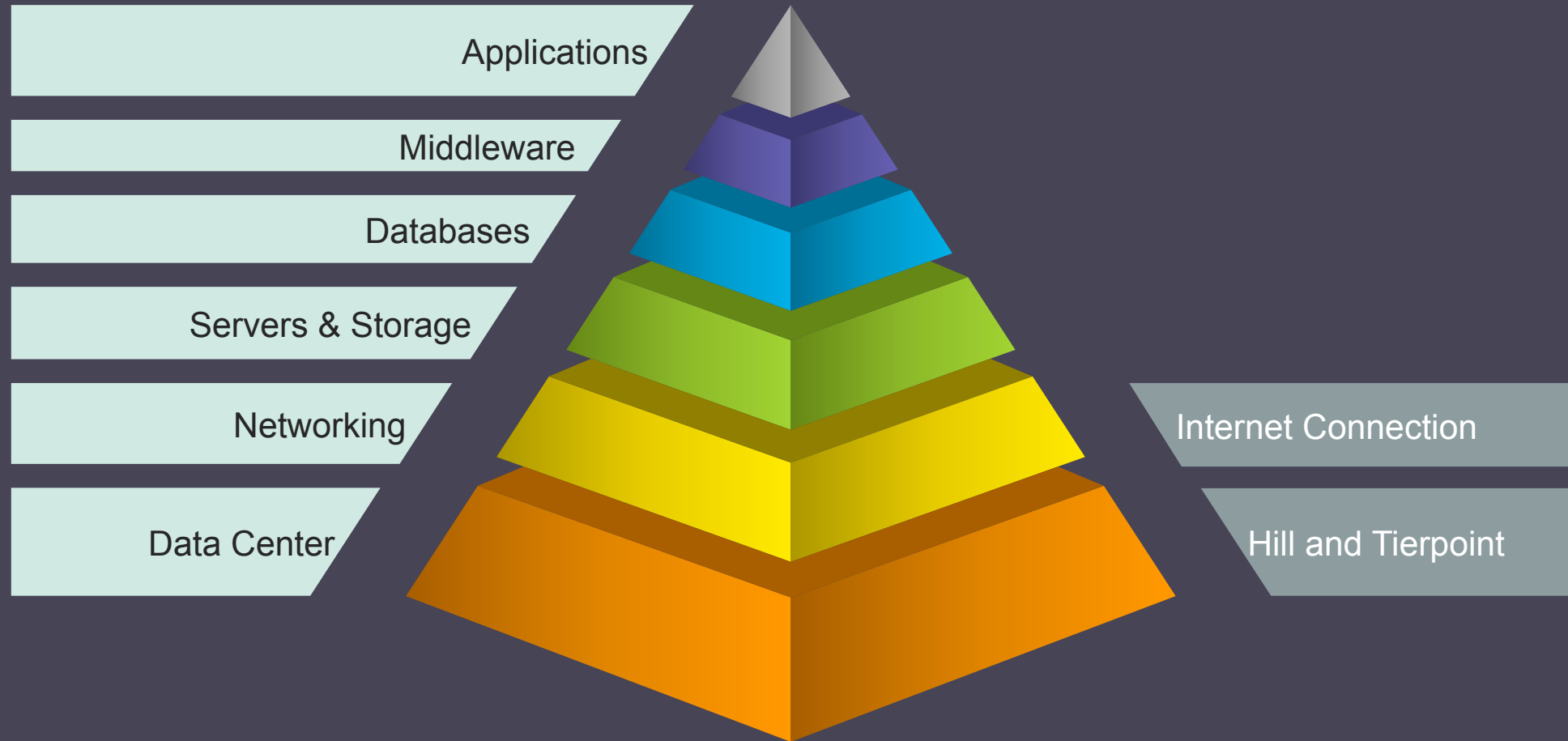
Facility Dynamics Engineering was retained by Tishman Construction Company to provide mechanical systems commissioning services for the Bank of New York's 160,000 sf Tennessee Processing Center. Our scope of commissioning (Cx) activities included HVAC systems serving the critical data center operations and the common comfort applications.

Systems Commissioned include:

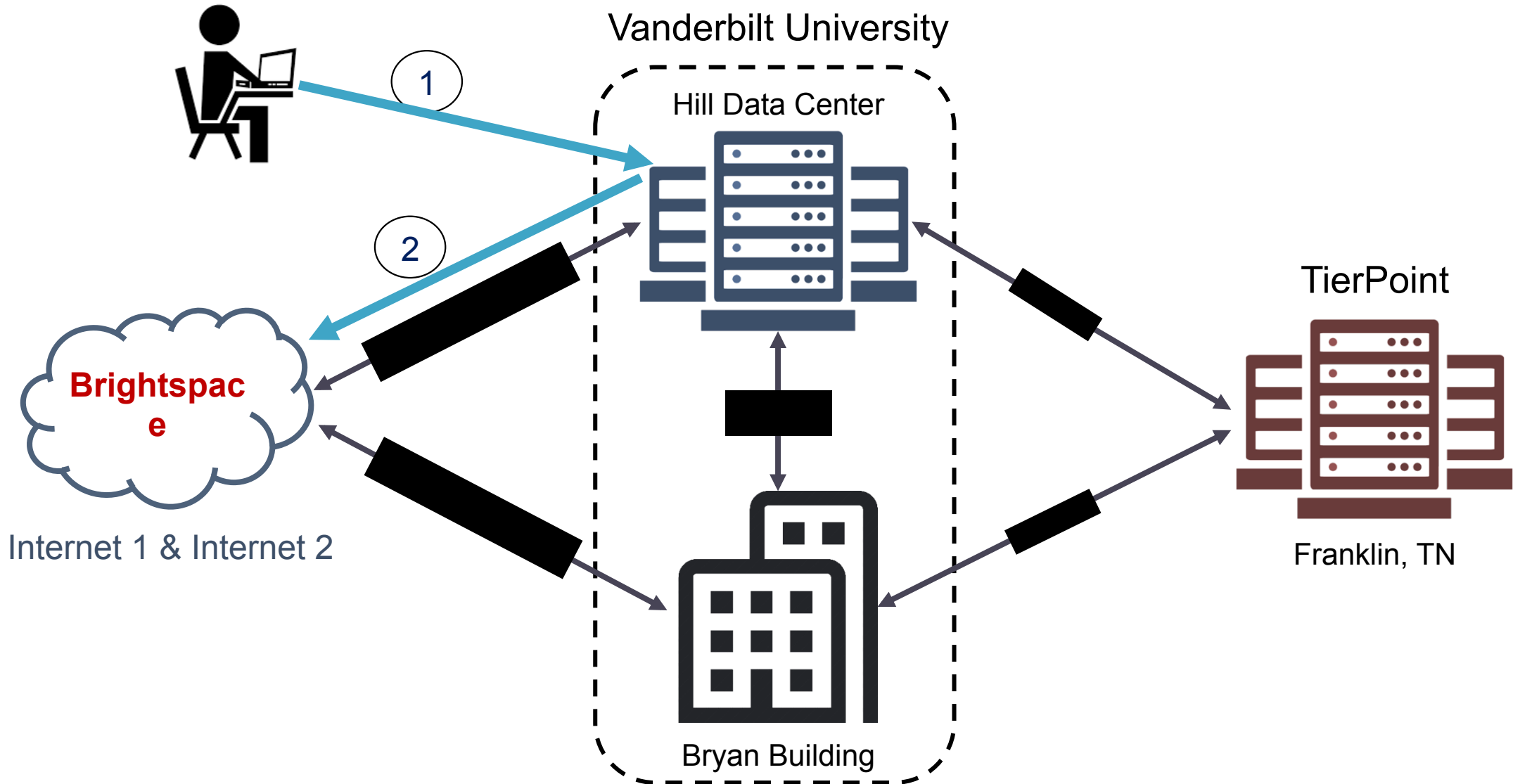
- HVAC Systems
 - Computer Room Air Conditioning Units
 - Redundant Condenser Water System
 - Water Source Heat Pumps
 - Cooling Tower
 - Chillers
 - Exhaust Systems
 - Fuel Oil Systems
- Building Automation System
- Electrical Systems
 - Emergency Generators
 - Dual Electric Utility Feeders
 - Switchgear



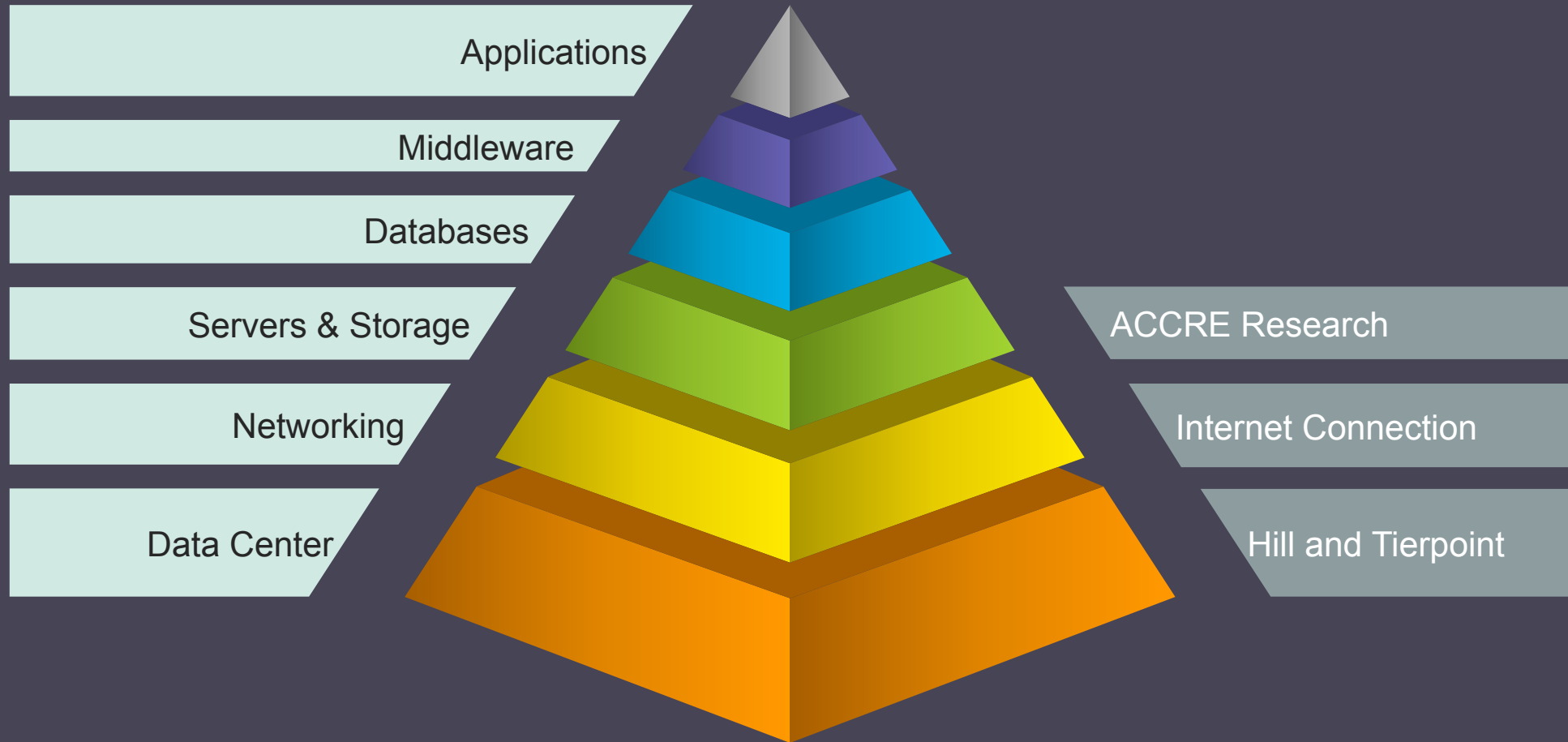
VUIT SERVICES: A PRIMER



HOW WE'RE CONNECTED



VUIT SERVICES: A PRIMER



ACCURE

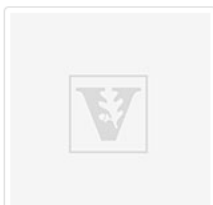
Advanced Computing Center
for Research and Education



Getting Ready for the CentOS 7 Upgrade

Aug. 13, 2018—(Update, 8/13/2018) This is a friendly reminder to please test your workflows in the CentOS 7 environment as soon as possible. See our website for regular updates on the number of cores on the CentOS 6 side versus CentOS 7 side. We will be deploying a large number of new Intel Xeon Skylake-based processors in...

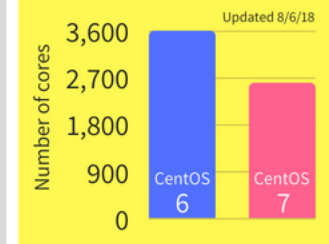
[Read more](#)



[Resolved] CentOS 7 login not working

Aug. 8, 2018—Update, 8/9/18: This appears to be resolved. We are looking into issues with logging in to the ACCRE CentOS 7 gateway this afternoon and we will update this when we have more information. In the meantime you may continue to use login.accre.vanderbilt.edu to access the cluster. Thanks! Updated 4:52pm to

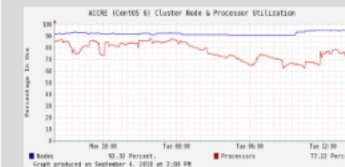
CentOS 7 Now available!



ssh login7.accre.vanderbilt.edu

[Learn more...](#)

Cluster utilization, past 24h



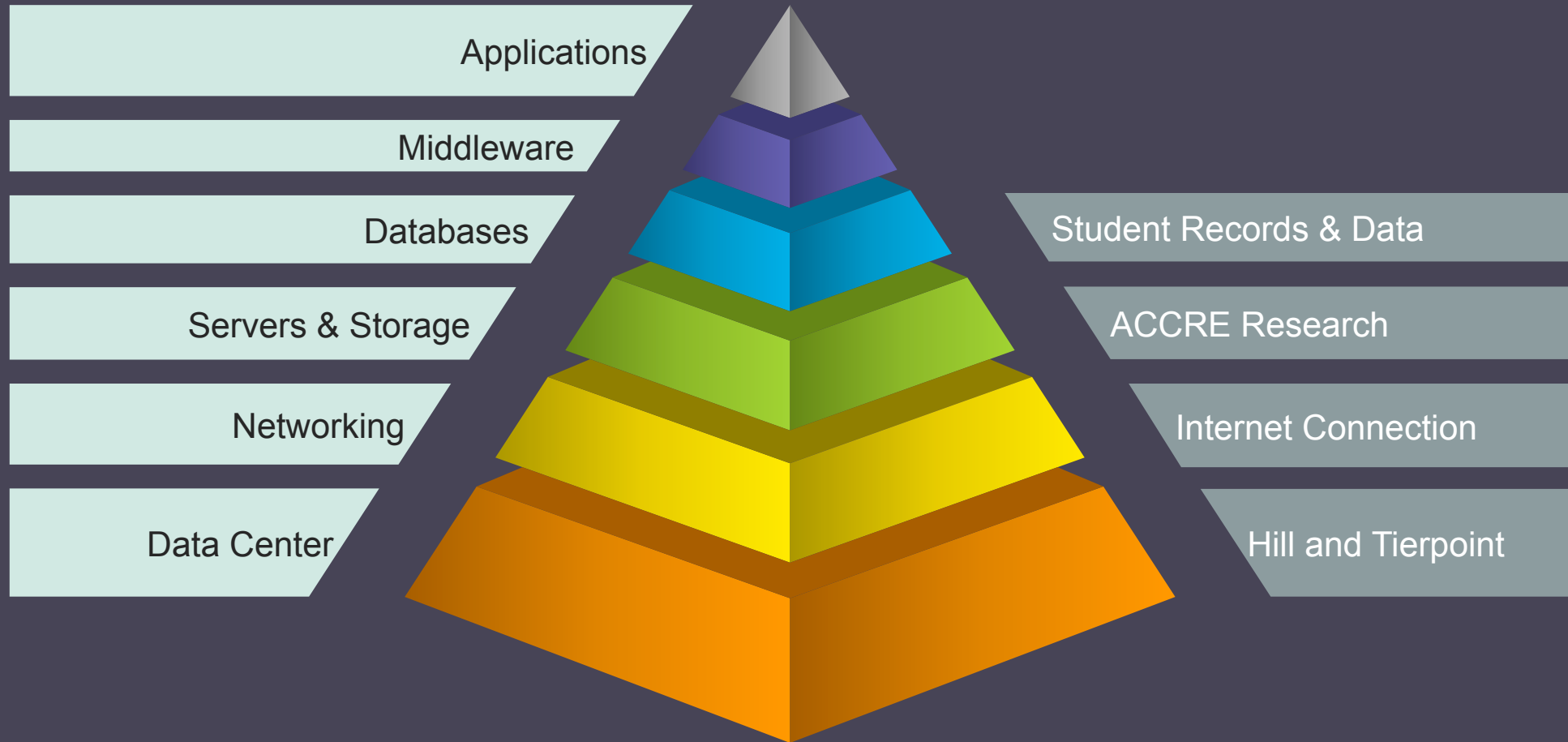
[More cluster utilization plots](#)

/data and /scratch sluggishness

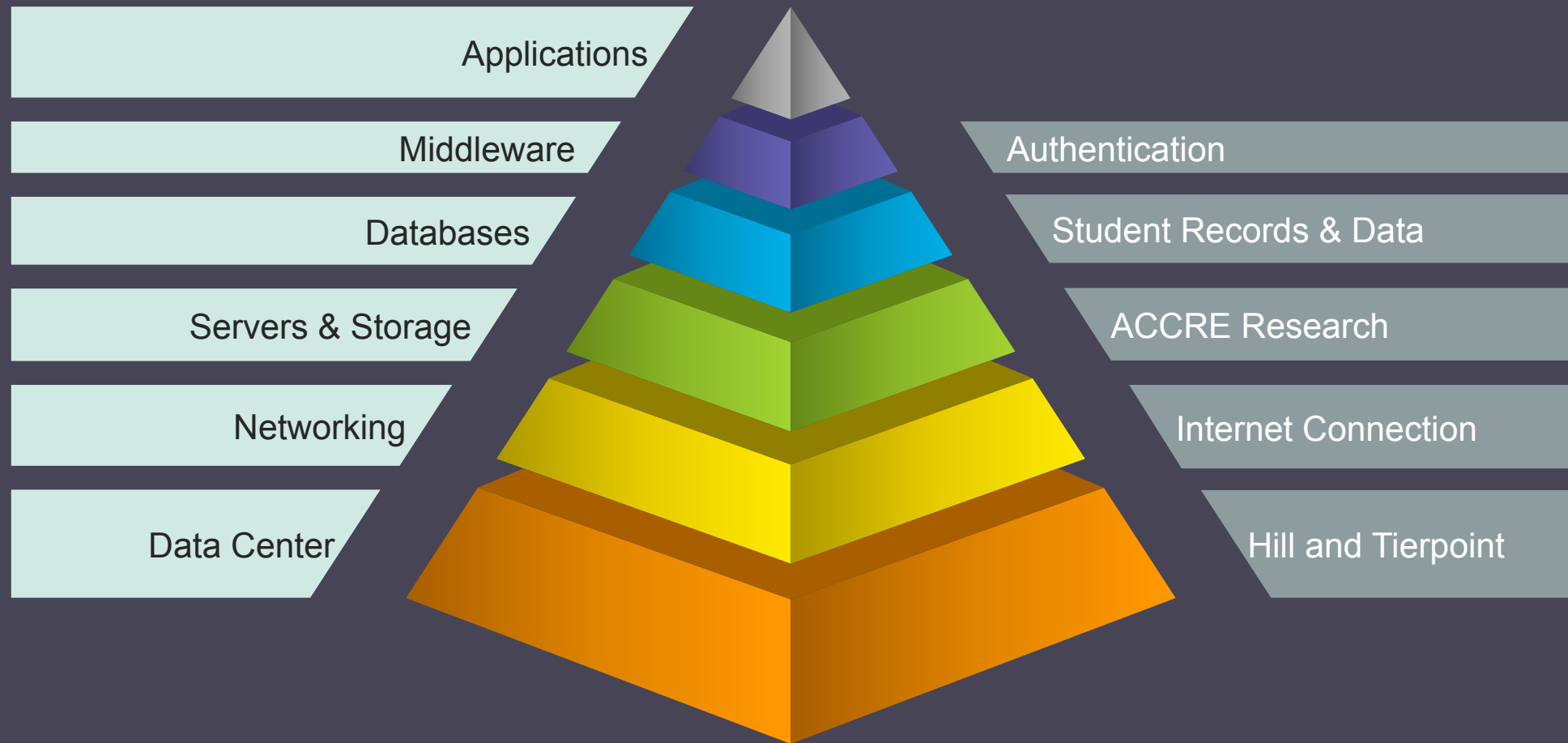
Update, 8/20/2018: The sluggishness on /data and /scratch returned over the weekend. We are in the process of trying to determine [...]

[ACCURE CHEAT SHEET](#)

VUIT SERVICES: A PRIMER



VUIT SERVICES: A PRIMER



Sign On

Please sign on and we'll send you right along.

Username

Password

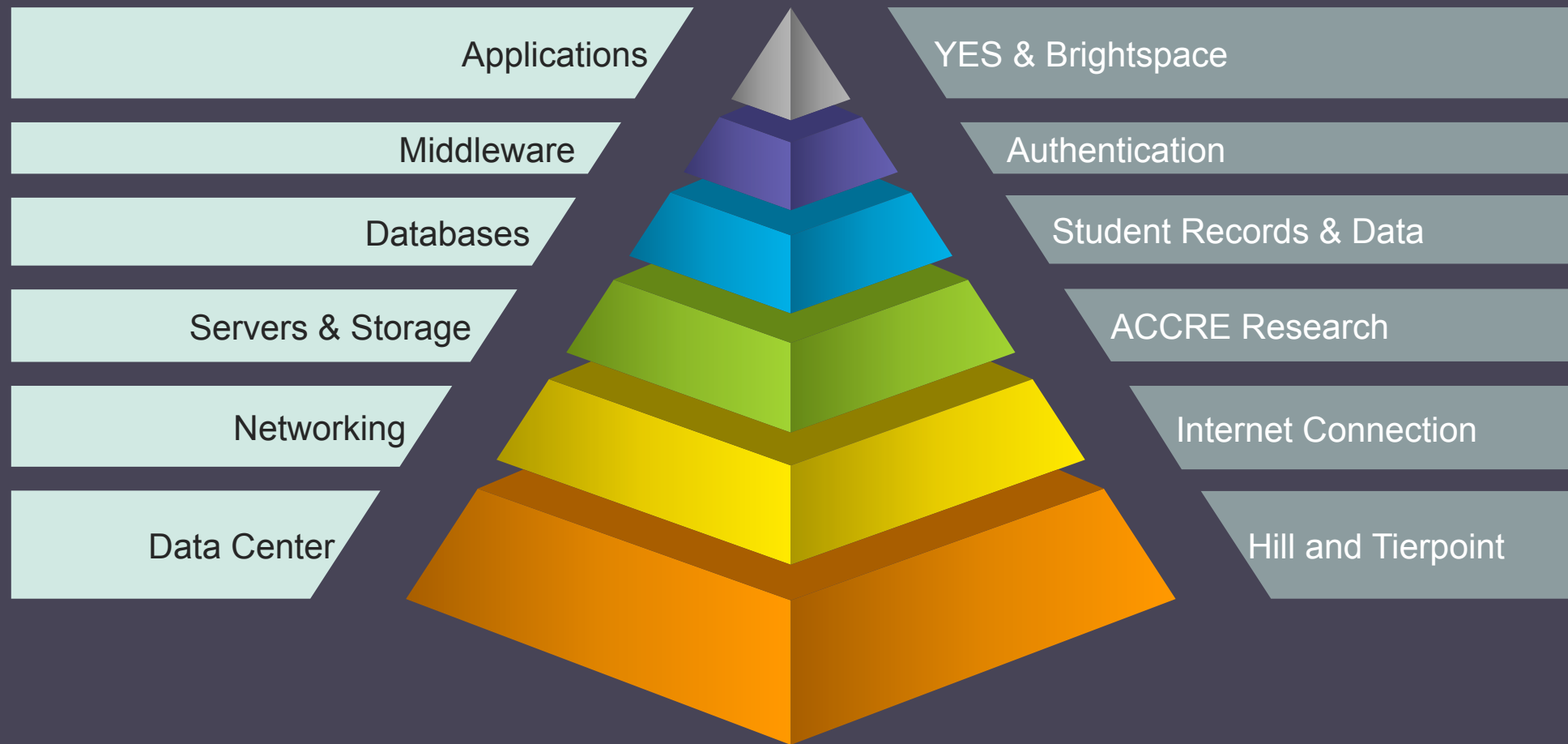


Cancel

Sign On



VUIT SERVICES: A PRIMER



OPTIONALITY & TRADE-OFFS

Location

- On premise
- Cloud

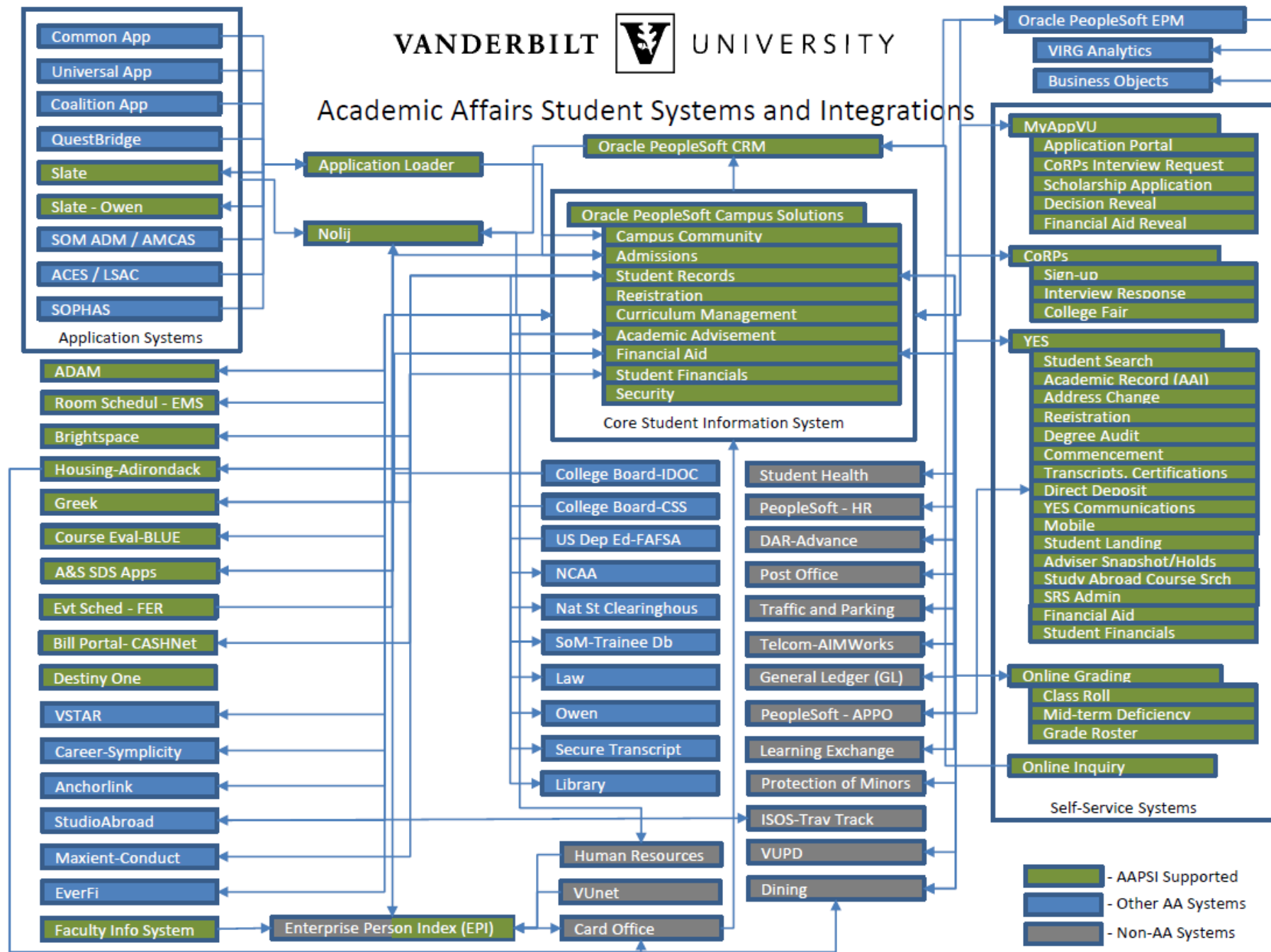
Redundancy

- No backup - I've lost everything and no way to recover
- No redundancy with backup – I have my data, but don't have a place to go and recover
- No redundancy with cold site – I have a place I can go and start to rebuild & recover
- Limited redundancy warm site – I have a place on standby that I can make active
- High redundancy hot site - immediate, no interruption

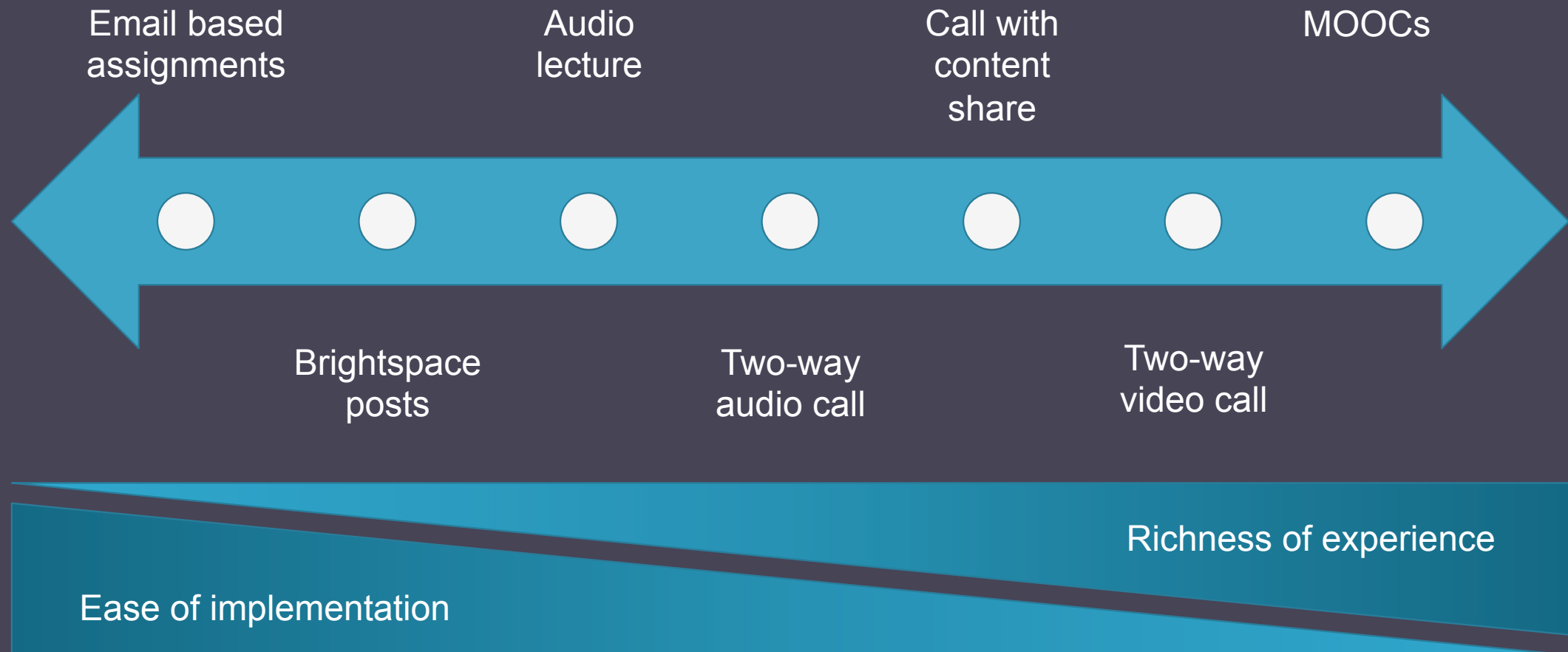
Functionality

- Feature customizations

Academic Affairs Student Systems and Integrations



PUTTING TECHNOLOGY TO USE: RESUMING CLASSES AFTER A DISASTER

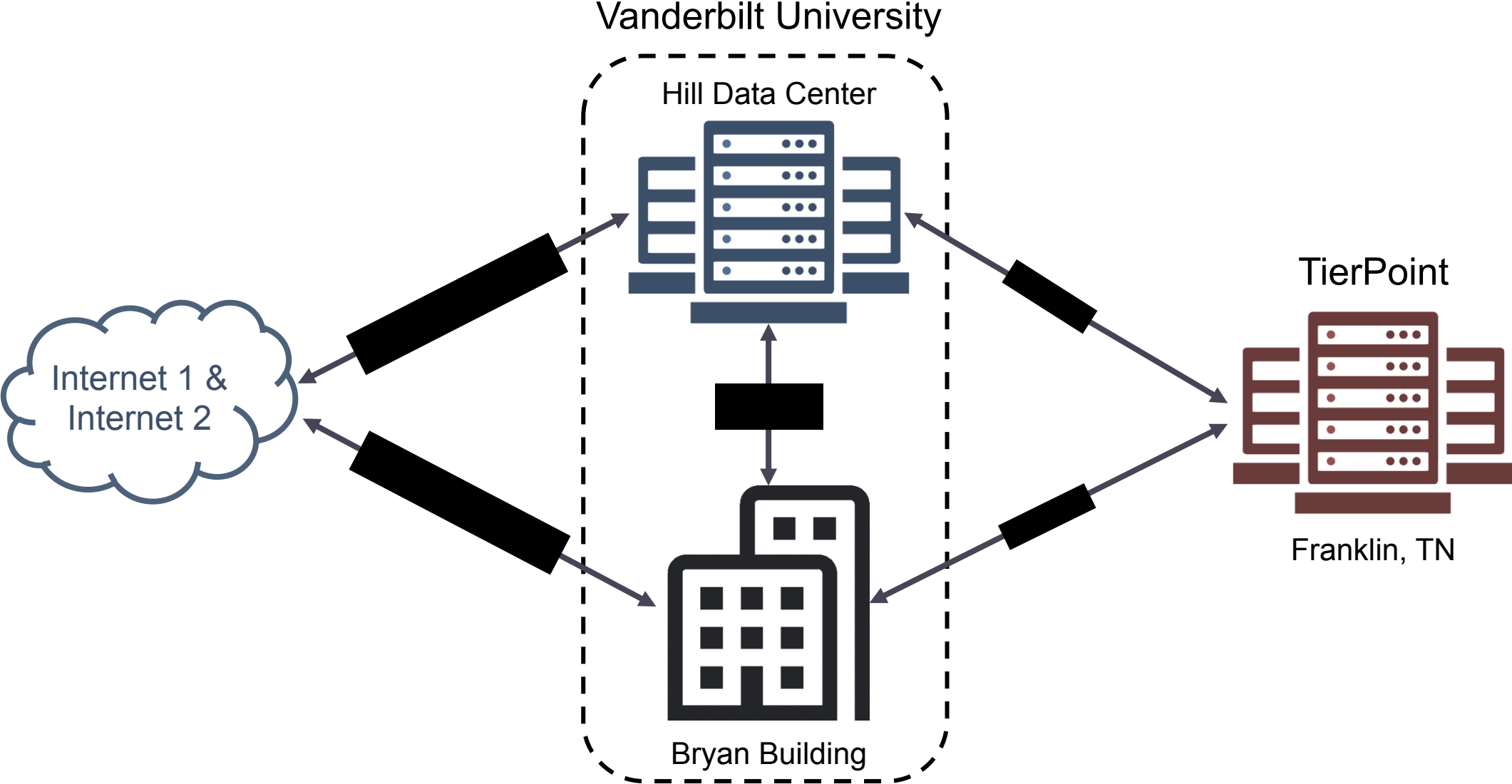


WHAT'S POSSIBLE

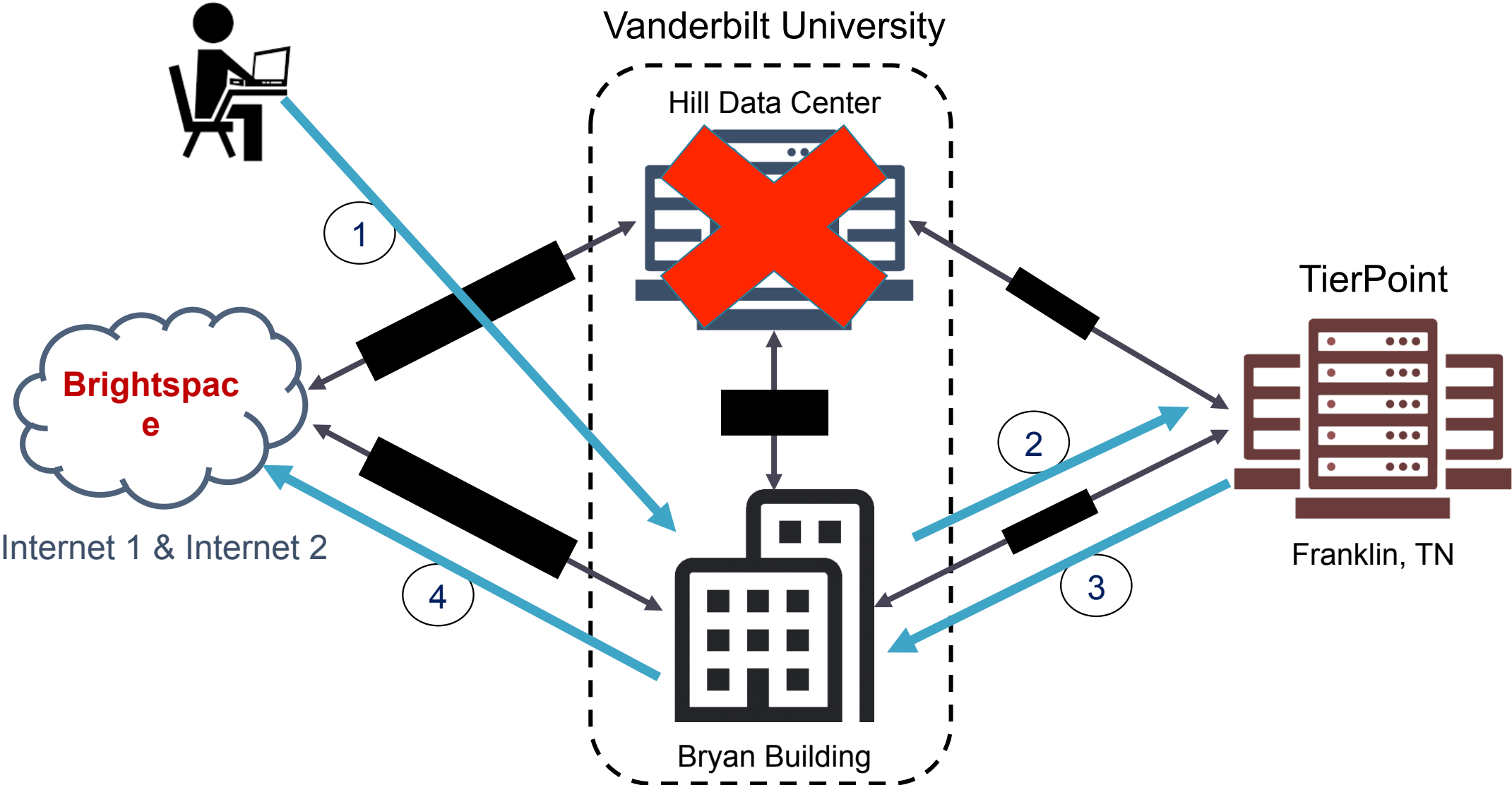


APPENDIX

HOW WE'RE CONNECTED



HOW WE'RE CONNECTED



- Show different “ hosting models”
- Local limited redundancy (Accre, lab based,.....
- Local high redundancy (YES, Ping,
- Cloud VU managed limit redundancy
- Cloud VU managed highly available / redundancy
- Cloud Saas vendor managed

- Redundancy models
- Components of applications and weakest links. (Web server, Dbase, middleware services, App servers)
- Policy and criticality identifications to have appropriate redundancy.
- Risk vs Expense to mitigate

Application components	Architecture Components	Current Primary	Current Secondary	Future Primary	Future Secondary
YES	Web Server	VUH	vXchnge (hot site)	Cloud (AWS)	? – Hill or Cloud AWS
YES web services	Middleware Server	VUH	vXchnge (hot site)	Hill	Tierpoint (hot site)
PeopleSoft CS	App Server	Hill	Tierpoint (backed up , cold site)	NA	Tierpoint
PeopleSoft CS	Database	Hill	Tierpoint (warm site)	NA	NA
PeopleSoft CS	File Server	Hill	Tierpoint (warm site)	NA	NA
Ping	Authentication	VUH	Hill (hot)	Hill	Cloud AWS (hot)

- Online delivery options

- Skype

- may need to add additional front end servers to handle load

- initiator of class has to be an enterprise user (most faculty are) Students would be standard users

- Microsoft Teams (cloud based)

- MOOC ?

- Brightspace? (may be able to configure to deliver content using Skype)

VANDERBILT

- Skype could be utilized to host virtual classrooms