



Service Level Agreement

ITS

Information
Technology
Solutions

Jul 2017 – Jun 2018

CONTENTS

1.0	Service Summary	2
2.0	Statistics and Facts Relevant to 1.0 Service Summary.....	3
3.0	Cost Summary Table.....	5
4.0	Service Line Detail.....	6

SLA Contact Information	
SLA Doc Contacts:	Email: shelley.gupta@ucr.edu Shelley Gupta, CFAO 951-827-2877 Email: danna.gianforte@ucr.eu Danna Gianforte, CIO 951-827-4888
Department & Services Directory	

FY 17-18 ITS SLA Summary of Costs (section 3.0)		
Total Service Costs	Total Overhead Costs	Total Unit Cost
\$26,108,242	\$2,594,682	\$28,702,924

1.0 SERVICE SUMMARY

Service Line Summary				
ITS Information Technology Solutions	Level of Service			
	Core Service	Premium Service	Recharge Service	Page
IT Security				
Define, implement, administer and enforce campus information security policies and practices	√	√		6
Enterprise Applications				
Support, manage, procure and develop central and departmental applications according to IT Governance priority and resource allocation	√	√	√	8
Enterprise Infrastructure				
Design, implement, architect, secure and support central campus technology infrastructure according to IT Governance priority and resource allocation	√	√	√	9
Campus Technical Support				
Support, manage and procure University applications, systems and devices for faculty, students and staff	√	√		11
Academic Support Services				
Support pedagogy development and provide instructional technology support	√		√	12
Overhead				
Administrative, financial and strategic oversight and assistance with ITS operations as well as special projects.	√			13

2.0 STATISTICS AND FACTS RELEVANT TO SERVICE SUMMARY

IT Security

- Monitor over 433 billion daily Internet packets for malicious activity and anomalies
- Monitor over 200 daily cyber incident alerts on the UCR network from 20 countries
- Investigate over 1000 annual cyber threats against systems, data and customers
- Scan, review, remediate over 4000 systems revealing vulnerabilities on weekly basis
- Conduct over 24 annual cybersecurity risk assessments and compliance questionnaires

Enterprise Applications

- Administer 175 system databases storing 30 terabytes of data
- Ensure system processing for over 1,300 annual awards in \$180M in sponsored funds
- Ensure system processing for over 1.2 million expenditure ledger records for over \$867M
- Ensure system processing for nearly 2 million enrollment transactions each term, with single day spikes of over 245,000 transactions during heavy load
- Ensure system processing for over 19,000 students on financial aid from 50,000 different funding sources each term

Enterprise Infrastructure

- Support 12 wireless network controllers, 46 wireless bridges and 2,487 access points
- Manage telephony for 8,000 phone extensions and over 3,000 handsets
- Administer a campus network that consists of 7 core network routers, 7 firewalls, 828 network edge switches, 83 network routers, in 300 closets and 44,224 network ports
- Support a campus email system that transmits over 700,000 emails per day to more than 100,000 R'Mail accounts and more than 5,000 Office365 accounts
- Administer over 1,000 servers in 3 data centers with 5.3 petabytes of storage capacity

Campus Technical Support

- Manage effective response to over 40,000 annual support tickets
- Provide over 2,800 hours of classroom technology support each year
- Provide audio / visual support for over 1,800 non-academic events in 9 HUB conference rooms and over 300 non-academic campus events in locations across campus
- Support 7 instructional computer labs with 8 printing stations and 1 remote student technical service desk

Academic Support Services

- Develop over 250 course capture recordings, 24 instructional webinars and 89 videos for online distribution / online learning
- Provide audio / video support for 50 large events with live streaming and archiving
- Provide classroom technology support for 87 general assignment classrooms
- Present 24 large classroom technology workshops and 54 small/medium classroom workshops and 1:1 tutorials
- Manage Learning Management System supporting 1,700 academic staff and 23,000 students

3.0 COST SUMMARY TABLE

	Service Cost Summary Table					
(A) Service Cost	FTE to Provide Service	Total Cost Driver per Total FTE*	Total Cost from Fund 19900 & 18083	Total Cost from Recharge and Premiums	Total Cost from Other Fund Sources	Total Service Cost
IT Security	6.65	\$43.26	\$1,095,556	\$144,770	\$0	\$1,240,326
Enterprise Applications	43.30	\$331.47	\$8,394,071	\$431,291	\$181,155	\$9,006,517
Enterprise Infrastructure	39.70*	\$207.58	\$5,256,701	\$3,500,140	\$173,576	\$8,930,417
Campus Technical Support	19.75*	\$82.32	\$2,084,580	\$657,648	\$177,450	\$2,919,678
Academic Support Services	16.21*	\$38.07	\$964,138	\$0	\$3,047,166	\$4,011,304
Sub Total	125.61	\$702.70	\$17,795,046	\$4,733,849	\$2,217,478	\$26,108,242
	Overhead Cost Summary Table					
(B) Overhead Cost	FTE	Total Cost Driver per Total FTE*	Total Cost from Fund 19900 & 18083	Total Cost from Recharge and Premiums	Total Cost from Other Fund Sources	Total Overhead Cost
Admin / Overhead	9.58*	\$102.46	\$2,594,682	\$0	\$0	\$2,594,682
Sub Total	9.58	\$102.46	2,594,682	N/A	\$0	\$2,594,682
GRAND TOTAL	135.19	\$805.16	\$20,389,728	\$4,733,849	\$3,579,347	\$28,702,924

* The driver for unit costs are faculty, staff, students FTE (25,324.05). Does not include Student Worker FTE.

4.0 SERVICE LINE DETAIL

To effectively prioritize and allocate central technology resources, a formal approach to shared governance established two advisory boards that collectively evaluate and prioritize all campus technology requests into Information Technology Solutions (ITS). The Academic Technology Advisory Board (AcTAB) collaboratively evaluates the proposed academic related technology initiatives that affect students and/or faculty and suggests the appropriate priority for governance consideration. The Administrative Technology Advisory Board (AdTAB) collaboratively evaluates the proposed administrative technology requests in order to prioritize campus-wide efforts and major funding requests. These advisory boards then make prioritization and resource allocation recommendations into the IT Executive Governance (ITEG) Committee for consideration, prioritization and funding at the campus level.

Name of Service:	IT Security
Brief Description of Service:	Define, implement, administer and enforce campus information security policies and practices
Web Address	http://its.ucr.edu/security
Service Level Agreement Specifics/Requirements of Service:	<p>Governance: Define, implement, administer and enforce cybersecurity policies and practices in collaboration with the Office of the President and local campus constituents. <i>CAPACITY: Publish 5 cybersecurity policies. Publish 5 cybersecurity procedures. Chair 3 cybersecurity Task Force committees.</i></p> <p>Risk Management & Compliance: Manage cyber risk assessment program, conduct risk assessments, provide compliance advisory consultation, and oversee annual security inventory survey. <i>CAPACITY: Conduct 12 initial risk assessments. Conduct 12 risk assessment reviews. Complete 12 Payment Card Industry (PCI) Self-Assessment Questionnaires (SAQ).</i></p> <p>Awareness & Training: Develop cybersecurity awareness programs. Provide advice and guidance on cybersecurity training opportunities. <i>CAPACITY: Deliver 12 cybersecurity awareness notifications. Deliver 10 cybersecurity awareness deliverables. Schedule and coordinate 12 external cybersecurity training courses.</i></p> <p>Incident Management: Establish and execute formal cybersecurity practices including event and incident monitoring, detection, response, recovery, initiating forensic investigations and breach management. <i>CAPACITY: Monitor 70000+ cyber alerts identified by intrusion detection systems (IDS). Investigate 1000 reported cyber threats. Respond to 800 reported cyber threats. Conduct 5 forensic cyber investigations.</i></p>

	<p>Threat Intelligence: Research and distribute cyber threat intelligence including in-depth analysis, tailored threat warnings and threat evidence for use in risk assessments, operations and awareness. <i>CAPACITY: Monitor 10 weekly cyber threat reporting sources. Distribute 10 weekly cyber intelligence reports.</i></p> <p>Vulnerability Management: Develop formal vulnerability evaluation and assessment programs including cyber threat intelligence analysis, assessment scheduling, execution, analysis and recommend remediation. <i>CAPACITY: Scan and review 4000 IT systems weekly. Coordinate and Initiate remediation on 4000 IT systems weekly. Scan and review 200 web applications weekly.</i></p> <p>Penetration Testing: Develop formal cyber penetration testing programs including test planning, execution, analysis, evaluation and recommended remediation. <i>CAPACITY: Plan, coordinate and execute 2 cyber penetration tests.</i></p> <p>Architecture/Engineering Consulting: Establish formal guidelines and practices for secure IT architecture and implementation across the campus. Provide consultation on new and in-progress campus initiatives. Scope includes networks, endpoints, application development, cloud, identity and access management, etc. <i>CAPACITY: Coordinate and support 18 cybersecurity projects.</i></p> <p>Identity and Access Management: Manage, maintain and provide cybersecurity consulting services and implementation for identity and access management systems. <i>CAPACITY: Coordinate and support 24 cybersecurity and identity management cases.</i></p>
Staffing Requirements	6.65 FTE
Customers Served	<p>Governance: Faculty, Students, Staff</p> <p>Risk Management & Compliance: Faculty, Students, Staff</p> <p>Awareness & Training: Faculty, Students, Staff</p> <p>Incident Management: Faculty, Students, Staff</p> <p>Threat Intelligence: Staff</p> <p>Vulnerability Management: Staff, Faculty</p> <p>Penetration Testing: Staff</p> <p>Architecture/Engineering Consulting: Staff, Faculty</p> <p>Identity and Access Management: Faculty, Students, Staff</p>
Recharge Services	None
Premium Services	<p>Yes – Customer: Housing/Dining</p> <p>Yes – Customer: Resident Halls (UNEX, UCR)</p> <p>Yes – Customer: Salinity Laboratory</p>
Service Cost Exclusions	N/A

Name of Service:	Enterprise Applications
Brief Description of Service:	Support, manage, procure and develop central and departmental applications according to IT Governance priority and resource allocation
Web Address	http://its.ucr.edu/apps
Service Level Agreement Specifics/Requirements of Service:	<p>Development of Enterprise Applications: Design, develop, implement, and integrate enterprise systems and applications. <i>CAPACITY: Maintain approximately 90 applications. Provide 90 application enhancements and 33 bug fixes across those 90 applications.</i></p> <p>Implementation of Enterprise Systems and Applications: Implement enterprise systems and applications as required by the university. Includes configuration, integration and other required customization. <i>CAPACITY: Administer approximately 10 vendor and cloud-based central applications.</i></p> <p>Application Administration: Administer, manage, secure and maintain enterprise applications across the university. <i>CAPACITY: Manage 100 applications supporting central campus functions, providing 10 application change requests per month.</i></p> <p>Production Operations: System upgrades, monitor system performance and batch processing, system tuning. <i>CAPACITY: Manage 100 applications supporting central campus functions, providing at least 10 upgrades / enhancements per year.</i></p> <p>Data Management & Reporting: Provide data and reports as requested. <i>CAPACITY: Generation of data files to satisfy internal data requests, at least 10 data requests annually and 50 database requests per month.</i></p> <p>Portfolio and Demand Management: Manage projects and align resources to campus priorities to effectively deliver IT services to campus. <i>CAPACITY: Varies based on IT Governance resource allocation.</i></p> <p>Consulting Services: Provide enterprise application consulting services as requested. <i>CAPACITY: Varies based on IT Governance resource allocation.</i></p>
Staffing Requirements	43.30 FTE
Customers Served	<p>Development of Enterprise Applications: Staff, Faculty, Students</p> <p>Implementation of Enterprise Systems and Applications: Staff, Faculty, Students</p> <p>Application Administration: Staff, Faculty, Students</p> <p>Production Operations: Staff, Faculty, Students</p> <p>Data Management & Reporting: Staff, Faculty, Students</p> <p>Portfolio and Demand Management: Staff, Faculty, Students</p> <p>Consulting Services: Staff, Faculty</p>
Recharge Services	Yes – Customer: Storehouse
Premium Services	Yes – Customer: Housing/Dining

	Expedited or Non-Enterprise Application Development & Maintenance – TBD
Service Cost Exclusions	N/A

Name of Service:	Enterprise Infrastructure
Brief Description of Service:	Design, implement, architect, secure and support central campus technology infrastructure according to IT Governance priority and resource allocation
Web Address	http://its.ucr.edu/infrastructure
Service Level Agreement Specifics/Requirements of Service:	<p>Voice: Manage and maintain telephone services (ex. Voicemail) on analog and digital systems. <i>CAPACITY: 400 Handsets Analog/Digital per engineer, 1000 VoIP handsets per engineer, 2000 Extension per engineer, 2 PBX units, 100 IDF/MDF per engineer. 70 incidents/requests per month per engineer.</i></p> <p>Network: Procure, install, manage and maintain wired and wireless networks, fiber, routers and other network devices. <i>CAPACITY: 750 edge switches per engineer, 32 routers per engineer, 4 cores switches per engineer, 32 hosted application per engineer, 1000 Access points per engineer, 32 bridges per engineer, 4 firewalls per engineer, 6 wireless controllers per engineer. 70 incidents/requests per month per engineer.</i></p> <p>Radio communication: Provide contract management and manage capacity. <i>CAPACITY: 600 radios supported for campus communications.</i></p> <p>Strategic (IT) Architecture: Define, implement, and enforce design standards and best practices for the technology infrastructure of the university. <i>CAPACITY: 6 design standard definition requests per month.</i></p> <p>Systems Administration: Manage and maintain servers and storage. <i>CAPACITY: 2 data feed change requests per day, 6 physical server change requests per month.</i></p> <p>Platform Administration: Manage and maintain computing platforms and hardware supporting campus applications. <i>CAPACITY: 5 change requests per month, 20 incidents per month.</i></p> <p>Virtual Machine Hosting: Manage and maintain virtual machines and storage as a premium service as requested by campus customers. <i>CAPACITY: 10 change requests per day.</i></p> <p>Data Center Operations: Manage and maintain data center infrastructure (e.g. HVAC, power) as well as physical access, server moves/adds/changes and print services.</p>

	<p><i>CAPACITY: 15 requests for datacenter power changes per month, 20 requests for datacenter access per month, 20 requests for production job changes per month, 20 projection control jobs requiring manual intervention per day.</i></p> <p>Program and Project Management: Manage projects and programs to effectively deliver IT services to campus.</p> <p><i>CAPACITY: Varies based on IT Governance resource allocation.</i></p> <p>Consulting: Provide consulting services as needed</p> <p><i>CAPACITY: Varies based on IT Governance resource allocation.</i></p>
Staffing Requirements	<p>39.70 Staff FTE</p> <p>Student Workers</p>
Customers Served	<p>Voice: Staff, Faculty</p> <p>Network: Faculty, Students, Staff</p> <p>Radio Communication: Staff</p> <p>Strategic (IT) Architecture: Staff, Faculty</p> <p>Systems Administration: Staff</p> <p>Platform Administration: Staff, Faculty</p> <p>Virtual Machine Hosting: Staff, Faculty</p> <p>Data Center Operations: Staff</p> <p>Program and Project Management: Staff</p> <p>Consulting: Staff, Faculty</p>
Recharge Services	Yes - Non-Standard Add/Moves/Change Requests
Premium Services*	<p>Yes – Customer: Housing/Dining</p> <p>Yes – Customer: Resident Halls (UNEX, UCR)</p> <p>Yes – Customer: Salinity Laboratory</p> <p>Virtual Machine Hosting – TBD</p> <p>Back-Up Services – TBD</p> <p>Systems Administration – TBD</p> <p>Database Administration – TBD</p> <p>Co-Location – TBD</p> <p>Storage – TBD</p> <p>*All for Non-Enterprise Application Development & Maintenance</p>
Service Cost Exclusions	None

Name of Service:	Campus Technical Support
Brief Description of Service:	Support, manage and procure University applications, systems and devices for faculty, students and staff
Web Address	http://its.ucr.edu/bearhelp
Service Level Agreement Specifics/Requirements of Service:	<p>AV Services: Provide AV support and services for special events (non-academic) which includes the design installation, and maintenance of AV equipment. <i>CAPACITY: 300 small campus events.</i></p> <p>User Application & Software: Install, maintain, support UCR sanctioned end user software. <i>CAPACITY: 15,000 support tickets per year.</i></p> <p>User Device Support: Provide support for UCR owned end user devices. <i>CAPACITY: 15,000 support tickets per year.</i></p> <p>Computing Labs: Manage non-academic use of general assignment computing labs. <i>CAPACITY: 5,000 support tickets per year.</i></p> <p>Web Content Management System: Set up and provide templates for UCR affiliated web pages (does not include content creation). <i>CAPACITY: Publish 10 new websites per month based on established UCR design templates.</i></p> <p>Productivity tools: Provide and manage tools for campus safety, collaboration and communication (email, SharePoint, iShare, eStorage) as well procure, track and distribute the licenses (license management). <i>CAPACITY: 2,500 support tickets per year.</i></p> <p>Consulting: Research and specify software and hardware suitable for campus use and compatible with campus systems. <i>CAPACITY: 2,500 support tickets per year.</i></p>
Staffing Requirements	19.75 Staff FTE Student Workers
Customers Served	<p>AV Services: Faculty, Staff, Students</p> <p>User Application & Software: Faculty, Staff, Students</p> <p>User Device Support: Faculty, Staff, Students</p> <p>Computing Labs: Staff, Students</p> <p>Web Content Management System: Staff, Faculty</p> <p>Productivity Tools: Staff, Faculty, Students</p> <p>Consulting: Staff, Faculty</p>
Recharge Services	None
Premium Services	<p>Yes – Customer: HUB</p> <p>Yes – Customer: Housing/Dining</p> <p>Yes – Customer: Resident Halls (UNEX, UCR)</p> <p>Yes – Customer: Salinity Laboratory</p> <p>Managed Desktop – TBD</p>

Service Cost Exclusions	None
-------------------------	------

Name of Service:	Academic Support Services
Brief Description of Service:	Support pedagogy development and provide instructional technology support
Web Address	http://its.ucr.edu/academic
Service Level Agreement Specifics/Requirements of Service:	<p>Digital Multimedia: Consult and assist with the production of instructional content. <i>CAPACITY: 250 course capture recordings with online distribution; 50 large events; 89 videos for online learning; 24 instructional webinars.</i></p> <p>Classroom Technology: Design, build, install and support general assignment classroom technology. <i>CAPACITY: Support 87 general assignment classrooms with SMART Technology; 67,000 hours of technology utilization; 2,000 just-in-time help requests from classrooms. 24 large classroom technology workshops; 54 small/medium classroom workshops and 1:1 tutorials</i></p> <p>Instructional Design: Assist instructors with adoption and use of technology for instruction. Administration and support for campus Learning Management System. <i>CAPACITY: 78 classroom technology workshops.</i></p> <p>Instructional Computer Labs: Manage academic use of general assignment computing labs. <i>CAPACITY: Support 7 instructional computer labs with 8 printing stations, plus 1 remote student technical service desk. 340 class sessions.</i></p> <p>Computational Cluster: Provide specialized computing environments for research. <i>CAPACITY: 1 ITS high performance computing cluster, 7 distributed CNAS & BCOE high performance computing clusters.</i></p> <p>Consulting: Investigate and recommend technology for instruction, research and general student success. <i>CAPACITY: 3 large projects, 6 medium projects, 12 small projects.</i></p>
Staffing Requirements	16.21 FTE Student Workers
Customers Served	<p>Digital Multimedia: Staff, Faculty, Students</p> <p>Classroom Technology: Faculty, Students</p> <p>Instructional Design: Faculty</p> <p>Instructional Computer Labs: Faculty, Students</p> <p>Computational Cluster: Faculty</p> <p>Consulting: Faculty</p>
Recharge Services	Digital Multimedia Instructional Design – TBD
Premium Services	None
Service Cost Exclusions	NA

Name of Service:	Overhead
Brief Description of Service:	Administrative, financial and strategic oversight and assistance with ITS operations as well as special projects.
Web Address	http://its.ucr.edu/cio
Service Level Agreement Specifics/Requirements of Service:	Administrative, Financial and Strategic Management: Administrative, financial, and strategic oversight and assistance with ITS operations as well as special projects.
Staffing Requirements	9.58 FTE Student Workers
Customers Served	Internal ITS staff as well as faculty, staff and students
Recharge Services	None
Premium Services	None
Service Cost Exclusions	NA