

# Roger Williams University Information Technology Strategic Plan

FALL 2022, VERSION 2.0



ADMINISTRATIVE SERVICES | CUSTOMER SERVICE | INFORMATION SECURITY | INFRASTRUCTURE | DATA ANALYTICS AND BUSINESS INTELLIGENCE  
| INSTRUCTIONAL TECHNOLOGY | REMOTE WORK | DIVERSITY, EQUITY, AND INCLUSION



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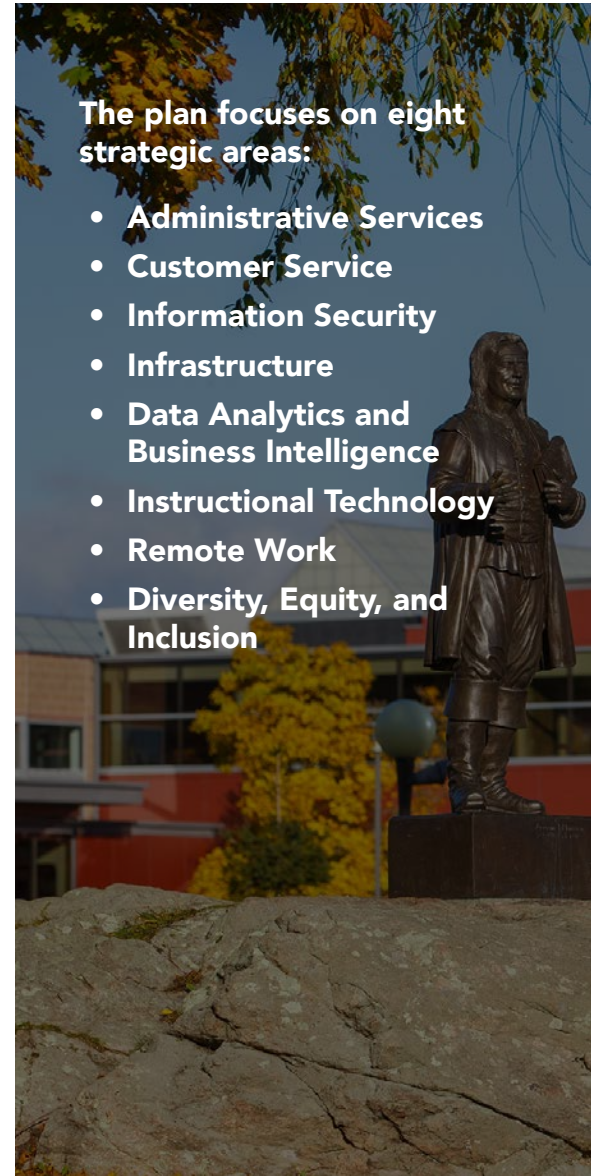
Roger Williams University's primary goal is rooted in the promise of 'Building the University the world needs now.' Information Technology (IT) plays an integral role in the fulfillment of this promise by enabling, supporting, and aligning the use of technology for students, faculty, and staff in pursuit of this goal. Technology has become a fundamental part of the university's operations, teaching and learning environment, and the way we interact with the campus community.

The IT Strategic Plan serves as a forward-thinking roadmap and guide for the university's future technology investments, emerging technologies, innovation, and operational needs. It also speaks to the pervasiveness and importance of technology as it touches all areas of the University.

The plan was created by the RWU Information Technology Department working collaboratively with university governance bodies including, The University Technology Council, The University Technology Strategic Board and subcommittees. Additionally, input from the University community at large was gathered from electronic surveys and listening groups. This collective effort helped inform the plan and made it representative of the needs of all university constituents.

## **PLANNING FRAMEWORK**

The eight areas provide a framework for the RWU technology environment to consolidate and align critical technology initiatives under a singular strategic focus. All strategic areas have specific goals, initiatives, and timelines attached to them. As the technology landscape shifts frequently, the RWU IT Strategic Plan will be reviewed and revised annually with a 3-5 year outlook to account for the changes and nuances in the strategic areas and to address any reprioritizations.



### **The plan focuses on eight strategic areas:**

- **Administrative Services**
- **Customer Service**
- **Information Security**
- **Infrastructure**
- **Data Analytics and Business Intelligence**
- **Instructional Technology**
- **Remote Work**
- **Diversity, Equity, and Inclusion**

## RWU IT VISION STATEMENT

The Information Technology Department delivers empowering teaching, learning, research, administrative, and communication technologies through a commitment to excellence in infrastructure, customer support, training, and technical leadership in fulfillment of the institutional mission and core values.

## RWU IT INCLUSION STATEMENT

The Information Technology Department understands and appreciates the important differences all people possess in culture, identity, perspective, and thought. Diversity make us stronger, both as individuals and as a community. Our pledge is to help create an inclusive culture for all by providing an environment where everyone feels respected and valued.

## RWU IT CORE VALUES

The values of the Information Technology Department align with the core values of the University directly and implicitly:

- 1. Collaboration** – RWU IT is committed to working together with all campus constituents in order meet our common goals, through productive discussion, knowledge sharing and teamwork.
- 2. Communication** – RWU IT creates good working relationships, transparency, trust, and accountability through consistent and reliable communication with the campus community.
- 3. Customer Service** – RWU IT establishes a technology environment that is customer-centric through a cultural and operational emphasis on customer satisfaction based on measurable performance indicators.
- 4. Excellence** – RWU IT holds our staff and services to the highest standard quality. We are dedicated to providing reliable, expedient, and valued services in the pursuit of operational excellence.
- 5. Inclusion** – RWU IT respects and values differences in the campus community, both personally and professionally. We include varied perspectives, opinions, and engage in collaborative critical thinking in order to make informed decisions.
- 6. Innovation** – RWU IT strives to create a technology environment where creativity is encouraged and developed through collaboration and access to technology resources.
- 7. Security** – RWU IT values the protection and privacy of user data above all else. We will ensure appropriate preventive measures are in place to protect the confidentiality and integrity of data systems.





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## ADMINISTRATIVE SERVICES

### Operational Excellence Through Technology

Administrative Services plays a vital role in introducing new technology solutions and how the University conducts business on a daily basis. It is important that RWU IT provide the tools necessary for effective, efficient, and expedient business processes that touch our students, faculty, and staff. Working in collaboration with academic and administrative departments throughout the University, RWU IT will support and enhance business process functionality, streamline services, promote accessibility, and comply with regulatory directives.

### Transforming the Enterprise Application Ethos

RWU IT will continue to migrate existing and prospective applications to cloud platforms. The focus will be on hosting, co-location, or Software as a Service (SaaS) delivery systems, in order to take full advantage of industry best practices, disaster and business continuity assurances, product upgrades, and web and mobile device accessibility. In addition, RWU IT will continue to promote secure and reliable internal and remote delivery of enterprise applications.

### Identity Management

As the complexity of systems increases, RWU IT will expand the use of access management tools such as single sign on, biometric credentialing, and mobile device tokenization, where appropriate, in order to provide easy and secure access to systems utilizing RWU credentials.

## CUSTOMER SERVICE

### Building a Customer-Centric Environment

RWU IT will strive to create a culture of continuous improvement relative to customer satisfaction. This will be done through the consistent monitoring and review of established customer Key Performance Indicators (KPIs), service level agreements, customer surveys, professional development, instituting industry customer service best practices, and communicating with customers regularly.

### Developing ONE IT Identity

As students, faculty, and staff support needs become more varied and complex, it's important we provide a singular and streamlined support model in order to give customers a seamless experience when addressing their issues. RWU IT will continue to improve customer satisfaction by working collaboratively with other departments in order to establish structures that give the customer one point of contact with multiple modalities (phone, email, text, etc.) for all IT-related issues.

### Improving Self-Service

RWU IT strives to enable customers to address issues quickly and efficiently via self-service tools. We will continue to develop our technical online knowledgebase, self-service password and identity management applications, and integrate self-service tools with existing and new enterprise systems.

## INFORMATION SECURITY

### Data Security Program

Securing the personal and sensitive data of our students, faculty, and staff is paramount. RWU IT has implemented a program designed to comprehensively protect our information resources. The program is based on industry standards and best practices including endpoint and infrastructure controls, policy and regulatory controls, information security training, ongoing data security communications, and varied online materials.

### Training

Security awareness and threat prevention training is integral to the overall success of the Data Security Program. RWU IT has enacted online security training modules using the industry recognized System Administration, Networking, and Security Institute (SANS). In combination with face to face awareness efforts and security policies, our goal is to minimize the risks associated with human error.

### Security Framework

RWU IT continually invests in security-related infrastructure in order to provide a state of the art architecture to combat potential data compromises and protect the integrity of university systems. RWU IT will protect data at rest and in transit based on The National Institute of Standards and Technology (NIST) framework.

## INFRASTRUCTURE

### Network Architecture

The demand for network resources in the form of Internet bandwidth, wifi, and network speed will continue to increase over time as more Internet-enabled devices come on the network. RWU IT must provide a scalable network infrastructure that will meet the demands of the RWU community today and into the future.

### Information Systems

Information systems are fundamental to the business of the institution. Recognizing the growing need to integrate best in breed technologies with core enterprise systems, RWU IT is committed to maintaining the data integrity of core enterprise systems and ensuring they are effective, secure, efficient and adapt with the changing needs of the University community.

### Cloud Strategy

Recognizing the value of cloud-based services relative to infrastructure needs, software maintenance, and remote access, RWU IT has adopted a cloud and mobile first strategy. We will leverage Software as a Service (SaaS), Infrastructure as a Service (IaaS), and Platform as a Service (PaaS) environments in order to provide the RWU user community with reliable, state of the art, and on-demand services.

## DATA ANALYTICS AND BUSINESS INTELLIGENCE

### Data Governance

To become a data-driven institution, data quality, data integrity, and data security must be a continuous focus. RWU IT will construct governance mechanisms to ensure RWU has reliable information to make informed business decisions.

### Software and Training

RWU IT is committed to improving data analytics tools and training for the RWU community. Working with our institutional partners and data owners, we will create a self-service reporting environment to move RWU forward.

### Business Intelligence Support

Working with departments, RWU IT will continue to integrate new data sources into the Data Warehouse and develop the documentation, user groups, and training materials to enhance overall institutional data analytical capabilities.

## INSTRUCTIONAL TECHNOLOGY

### Creating the Learning Spaces for Tomorrow

Technology in the classroom has become one of the cornerstones of the teaching and learning experience. RWU IT is committed to outfitting classrooms and other learning and collaboration spaces with state of the art technology for in class and distance learning environments.

### Providing the Tools for Teaching and Learning

Providing the RWU community with industry best in breed tools for instruction and learning is core to the mission of RWU IT. We will continue to improve our Learning Management Systems (LMS), Student Information Systems (SIS), and classroom tools with a framework that gives flexibility and access.





## REMOTE WORK

### **Improve Remote Work Capabilities**

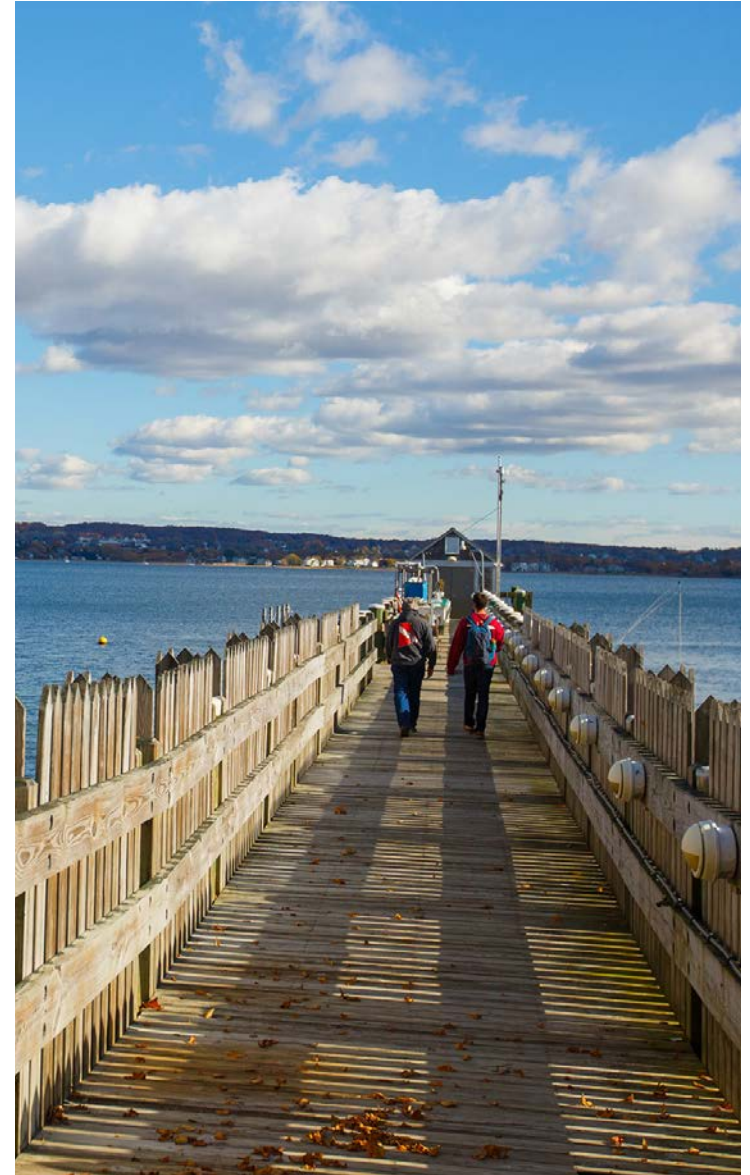
RWU recognizes the importance of providing a seamless and productive experience for our remote workers. As such, RWU IT is committed to the continuous improvement of our mobile and web-based applications.

### **Provide Secure Remote Access to RWU Resources**

RWU IT aims to establish a secure mobile framework in which the RWU community can securely access university systems and information from their mobile devices and web platforms from anywhere in the world.

### **Enhance IT Support for Remote Workers**

With the increase in remote workers, RWU IT aims to provide the ongoing support necessary to maximize productivity. New tools, information, and training will be deployed to minimize user interruptions and to ensure a positive experience for RWU's remote workforce.



## DIVERSITY, EQUITY, AND INCLUSION

### Develop an Inclusive Culture

RWU IT continuously works to improve its culture of inclusivity. Over the next 3-5 years, we will enact programs under this goal in our hiring processes and identify areas where we can enhance and embrace cultural awareness.

### Diversity Equity and Inclusion (DEI)

The RWU Information Technology Department is committed to establishing an environment where all IT staff conduct themselves without bias. We will put in place DEI-based programs and training to ensure staff consistently practice this approach.

### Focus on Underserved RWU Learner Communities

Working with our university and community partners, RWU IT will provide computing and Internet resources to its underserved populations. These initiatives will continue to be a core component of the university's mission.







# Roger Williams University





## AREA ONE: ADMINISTRATIVE SERVICES

### Goal

Design and deliver an effective and efficient information framework that supports the business needs of the University.

	OBJECTIVE	INITIATIVES	TIMEFRAME
1	Business Process Enhancement	<ul style="list-style-type: none"> <li>Streamline business processes to improve business efficiency and continue to reduce the use of paper</li> <li>Improve customer experience and enhance self-service capabilities</li> <li>Collaborate with business units to conduct user/system needs assessment and optimize business processes to achieve efficiency, eliminate challenges, and promote automation</li> </ul>	2022-2026
2	Establish ERP Governance	<ul style="list-style-type: none"> <li>Establish an accountable and transparent working committee to discuss ERP standards, procedures, and promote collaboration between all stakeholders</li> <li>Review and update the university Application Portfolio to ensure all applications on campus are accounted for and being used efficiently and cost-effectively</li> <li>Reconvene a data standards committee ensuring data custodians from all key university departments are represented</li> </ul>	2022-2024

	OBJECTIVE	INITIATIVES	TIMEFRAME
3	Promote Campus Efficiencies, Automation, and Integration	<ul style="list-style-type: none"> <li>• Assess third-party integrated ERP applications and prioritize system growth opportunities</li> <li>• Enhance and modernize ERP interfaces between connected systems to optimize efficiency, security, and sustainability</li> <li>• Implement internal IT change management governing system</li> <li>• Increase use of delivered functionality in enterprise applications (remove customizations)</li> <li>• Develop and support model for existing cloud-based productivity applications</li> </ul>	2022-2026
4	Staff Development and Training	<ul style="list-style-type: none"> <li>• Devise a succession planning model for personnel resources within the organizational unit</li> <li>• Promote Administrative Systems professional development and team cross training model and create an onboarding training process for new staff</li> <li>• Provide technology support and instruction on the suite of ERP applications</li> <li>• Develop a deeper level of RWU departmental expertise in ERP system usability</li> </ul>	2022-2026

## AREA TWO: CUSTOMER SERVICE

### Goal

Create a customer focused service environment that fully supports the technology needs of the RWU community.

	OBJECTIVE	INITIATIVES	TIMEFRAME
1	Campus Communication/ Outreach	<ul style="list-style-type: none"> <li>Formalize IT outreach plan</li> <li>Build out and promote RWU IT social media platforms</li> <li>Review and update IT website content and design</li> </ul>	2022-2025
2	Service Desk Experience	<ul style="list-style-type: none"> <li>Optimize use of current ITSM tool</li> <li>Continue to grow collaboration with Instructional Design and explore other departmental collaborations</li> <li>Improve current IT student employee program including, training, performance evaluation, and development</li> </ul>	2022-2025
3	Staff Development	<ul style="list-style-type: none"> <li>Formalize individual staff professional development plans</li> <li>Develop a program to engage and support staff in formal and informal professional development opportunities</li> <li>Enhance existing staff recognition and awards program</li> </ul>	2022-2026



	OBJECTIVE	INITIATIVES	TIMEFRAME
4	Self-Service	<ul style="list-style-type: none"> <li>• Build-out and promote the IT self-service portal</li> <li>• Enhance knowledge base and other instructional materials</li> <li>• Review and update password management solution</li> </ul>	2022-2026
5	Continuous Improvement	<ul style="list-style-type: none"> <li>• Utilize annual satisfaction surveys, ticket surveys, focus groups, and monthly ITSM tool feedback meetings to identify service improvements</li> <li>• Identify further improvements to IT's culture of inclusivity</li> </ul>	2022-2026

## AREA THREE: INFORMATION SECURITY

### Goal

Create a security architecture and program that comprehensively asserts confidentiality, integrity, and availability to the University's information assets.

	OBJECTIVE	INITIATIVES	TIMEFRAME
1	Maintain Integrated Security Policies, Procedures, and Protocols	<ul style="list-style-type: none"> <li>• Convene cross-functional security advisory group to revise IT security policies</li> <li>• Conduct risk assessments with business units</li> </ul>	2023
2	Security Awareness Training	<ul style="list-style-type: none"> <li>• Configure and distribute general cyber awareness training modules (faculty &amp; staff)</li> <li>• Provide security-sensitive data training to users with access to SSI</li> </ul>	2022-2026
3	Biennial Assessments and Audits	<ul style="list-style-type: none"> <li>• Conduct network vulnerability assessment and remediation (IT systems)</li> <li>• Conduct IT controls audit (ISO/NIST gap assessment)</li> <li>• Conduct PCI annual attestation (payment card industry - data security standard)</li> </ul>	2022-2026
4	Continuous Security Infrastructure Enhancement	<ul style="list-style-type: none"> <li>• Implement Multifactor Authentication (MFA)</li> <li>• Investigate "user-consent" option to share data with 3rd Parties (i.e. GDPR opt-in, opt-out)</li> <li>• Beta-test SSI Scanner: ability to scan and report share drives that hold PII (inventory non-structured sensitive data)</li> <li>• Investigate new anti-virus software and MDR options for endpoint security</li> <li>• Evolve email phishing controls: O365 - quarantine un-opened emails identified as phishing</li> </ul>	2022-2023

## AREA FOUR: INFRASTRUCTURE

### Goal

Develop a robust and reliable computing infrastructure environment that serves the changing needs of the campus community.

	OBJECTIVE	INITIATIVES	TIMEFRAME
1	Augment Network Infrastructure with 5G Technology	<ul style="list-style-type: none"> <li>• Implement in-building 5G WiFi supplementation via carrier partnerships</li> <li>• Reduce RWU network dependency through user-provided alternative bandwidth option</li> <li>• Provides bandwidth backup for network outages</li> </ul>	2022-2026
2	Upgrade to a Hosted Virtual Desktop Environment	<ul style="list-style-type: none"> <li>• Migrate the current VDI solution (rCloud) to a cloud-based high-performance, high-availability platform. ADD: Improve the user experience with resource intensive and critical applications. ADD: Eliminate the need for costly upgrades</li> </ul>	2022-2023
3	Wireless Network Upgrades	<ul style="list-style-type: none"> <li>• Upgrade entire campus to faster and more reliable WiFi 6 standard</li> <li>• Expand and upgrade outdoor wireless coverage to uncovered areas</li> <li>• Upgrade campus buildings with older WiFi infrastructure</li> </ul>	2022-2024
4	Campus Network Upgrades	<ul style="list-style-type: none"> <li>• Simplify network topology to enable 10-40G network upgrade</li> <li>• Upgrade campus buildings to the latest switch standards</li> <li>• Deploy a new network monitoring system to proactively respond to network issues and minimize downtime</li> </ul>	2022-2026



## AREA FIVE: DATA ANALYTICS AND BUSINESS INTELLIGENCE

### Goal

Create a data-driven campus culture that advances the student experience, improves student retention, and informs business operations decision-making.

	OBJECTIVE	INITIATIVES	TIMEFRAME
1	Software and Training	<ul style="list-style-type: none"> <li>• Provide better training for our primary reporting and analysis tools</li> <li>• Acquire adequate licensing for our primary reporting and analysis tools so that users can develop their own data-driven reports/dashboards</li> <li>• Provide periodic enduser training for reporting tools and maintain updated training materials on the technology training website</li> </ul>	2022-2026
2	Data Governance	<ul style="list-style-type: none"> <li>• Strengthen data quality standards by working with the end users and develop a Data Warehouse User Group for collaboration within the entire community</li> <li>• Develop data access standards to increase users access to information needed for their business and beyond</li> <li>• Work with data owners to ensure data security and integrity</li> <li>• Create meaningful dashboards that users want to use to better drive data informed decision making</li> </ul>	2022-2026
3	Support	<ul style="list-style-type: none"> <li>• Work with departments, governance committees, and user groups to provide the data needed to aid in day to day business needs</li> <li>• Assist users in self developing daily reports and data analytics dashboards</li> <li>• Maintain the integrity and security of the Data Warehouse</li> <li>• Actively promote and integrate data sources into the Data Warehouse</li> </ul>	2022-2026

## AREA SIX: INSTRUCTIONAL TECHNOLOGY

### Goal

Construct and nurture a teaching and learning environment that enriches the student experience.

	OBJECTIVE	INITIATIVES	TIMEFRAME
1	New Support Models	<ul style="list-style-type: none"> <li>• Transition to less reliance on third-party/fee-based repair/upgrade services</li> <li>• Create manufacturer-based training plan for staff</li> <li>• Build student employee skill base program</li> </ul>	2022-2026
2	"Next Generation" Classroom Technology	<ul style="list-style-type: none"> <li>• Collaborate with planning teams and campus stakeholders to support the classroom master plan</li> <li>• Research, plan, and deploy a new classroom technology standard, considering new and innovative hardware, software, and design solutions</li> <li>• Establish an annual funding model for upkeep and replacement of classroom technology</li> </ul>	2022-2026
3	Growing Partnerships	<ul style="list-style-type: none"> <li>• Strengthen campus partnerships with Academic Affairs, Instructional Design and Capital Projects</li> <li>• Further develop relationships and partnerships with vendors and manufacturers</li> <li>• Engage staff with related professional organizations and provide networking opportunities with colleagues at other institutions</li> <li>• Work with our partners to support, strengthen, and expand the university's online learning environment</li> </ul>	2022-2026

	OBJECTIVE	INITIATIVES	TIMEFRAME
4	Continuous Improvement	<ul style="list-style-type: none"><li>• Engage in ongoing research on innovative instructional technologies</li><li>• Use data tools to inform future equipment deployments and replacements</li></ul>	2022-2026

## AREA SEVEN: REMOTE WORK

### Goal

Cultivate a model where information can be accessed securely from any Internet connected device.

	OBJECTIVE	INITIATIVES	TIMEFRAME
1	Enhance Remote Work Capabilities	<ul style="list-style-type: none"> <li>• Implement hotspot and laptop loaner program for faculty and staff</li> <li>• Enhance Single-Sign-On (SSO) and web-based access capabilities</li> </ul>	2022-2024
2	Secure Access to RWU Technology Resources	<ul style="list-style-type: none"> <li>• Conduct annual audits of remote work apps, network access, and user access</li> <li>• Amend RWU Written Information Security Plan (WISP) to include remote work policies and procedures</li> <li>• Require MFA for all remote work devices</li> </ul>	2022-2025
3	Revise Remote IT Support Structure	<ul style="list-style-type: none"> <li>• Develop a remote user onboarding for new and existing employees</li> <li>• Update remote work website</li> <li>• Train mediatech staff on remote work support technologies</li> </ul>	2022-2024



## AREA EIGHT: DIVERSITY, EQUITY, AND INCLUSION

### Goal

To create an inclusive and equity-based environment where everyone feels a sense of belonging and engagement.

	OBJECTIVE	INITIATIVES	TIMEFRAME
1	Diversity, Equity, and Inclusion Training for All IT staff	<ul style="list-style-type: none"> <li>• Conduct annual Safe Zone training for all IT staff</li> <li>• Provide annual unconscious bias to all IT staff</li> <li>• Require inclusive language training for all IT staff</li> </ul>	2022-2024
2	Focus on Underserved RWU Learner Communities	<ul style="list-style-type: none"> <li>• Explore computer and hotspot loaner program for remote learners</li> <li>• Establish free broadband access at Bristol and Providence campuses for underserved community access</li> </ul>	2022-2024
3	Accessibility	<ul style="list-style-type: none"> <li>• Conduct IT offices and facilities accessibility review</li> <li>• Review equipment in public spaces for accessibility</li> <li>• Conduct digital accessibility review (website and portal)</li> </ul>	2022-2024
4	Develop an Inclusive Culture	<ul style="list-style-type: none"> <li>• Implement equitable IT employee search and hiring processes</li> <li>• Identify further improvements to IT's culture of inclusivity</li> </ul>	2022-2026

# Acknowledgements

A special thank you to all those involved in the IT strategic planning process. The plan is the result of a collaborative effort replete with rich and insightful information from a variety of sources throughout the Roger Williams University community. The Information Technology Department is proud of the strong relationships we've built with all our constituents and look forward to continued productive partnerships.

**A very earnest expression of gratitude to the following groups for their hard work on the plan:**

- The Technology Strategy Board
- The Technology Strategy Board IT Strategic Planning Subcommittee
- The Technology Council
- IT Leadership Team
- The Roger Williams University Marketing and Communications Department

Design: DonnaDeForbesCreates.com





