Division of Academic and Administrative Technologies

Comprehensive Technology Plan for the Río Piedras Campus

University of Puerto Rico
Río Piedras Campus
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Presented by:
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I. Introduction

The purpose of this report is to present, in a consolidated and strategic manner, the Comprehensive Technology Plan of the Río Piedras Campus of the University of Puerto Rico. This plan brings together a set of large-scale technological initiatives aimed at strengthening critical infrastructure, operational continuity, technological security, administrative efficiency, and the academic and student experience.

These initiatives have been developed and processed by the Division of Academic and Administrative Technologies (DTAA), supported by institutional objectives, Academic Senate recommendations, accreditation requirements, and managed under governance, leadership, and administrative structures aligned with the Standards of Excellence of the Middle States Commission on Higher Education (MSCHE), as well as the need to modernize the platforms that support the essential functions of the Campus.

II. Institutional Strategic Framework

The Strategic Roadmap of the Río Piedras Campus 2024–2029 establishes the purpose of linking planning processes with the allocation of fiscal and human resources and with institutional effectiveness. It also identifies strategic issues such as strengthening research and academic activity; educational, operational, and infrastructure transformation; progress toward sustainability; and service and integration with communities.

Complementarily, the Roadmap is implemented through institutional tools (Development Plan and Annual Plan templates) provided by the Division of Institutional Research and Assessment (DIIA), strengthening the planning–execution–evaluation cycle.

The initiatives included in this Plan directly address the objectives of the Campus Strategic Plan, particularly:

- Technological modernization
- Administrative and managerial optimization
- Culture of evaluation and institutional assessment
- Efficiency and resilience of physical and technological spaces
- Sustained engagement with students
- Support for competitive research
- Academic and administrative continuity

Each project has been evaluated and approved in accordance with the formal procedures of the Technology Fee Committee, the Bid Board, and other required administrative units.

III. Strategic Technological Initiatives

Projects included in this report:

- Comprehensive Replacement of the Campus Wireless Network (Wi-Fi)
- Server Replacement – Dell PowerEdge MX7000 Chassis
- Replacement of the Institutional Telephone System
- Acquisition and Installation of an Electrical Generator for the Data Center
- DTAA Audiovisual Laboratory
- RESICAMPUS Project – Data, Communications, and Security Infrastructure

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1. Comprehensive Replacement of the Campus Wireless Network (Wi-Fi)

General Description
This project contemplates the complete replacement of the wireless infrastructure of the Río Piedras Campus, substituting obsolete equipment installed between 2003 and 2020 with modern technology based on **Wi-Fi 6/6E**, with centralized control, higher security levels, and homogeneous connection capacity across all academic and administrative facilities.

The project responds to Certification No. 122 of the Academic Senate, which mandates the review and correction of connectivity service deficiencies on campus.

Strategic Scope

- Direct impact on the entire university community
- Support for teaching, research, student services, and remote work
- Compliance with accreditation requirements (Middle States)

Documented Timeline

- **Approval by Technology Fee Committee:** May 2023
- **Bidding and award process:** 2023–2024
- **Authorized service contract:** December 1, 2025
- **Configuration and access point installation phase:** March 2026 – August 2026
  (according to the detailed building-by-building replacement plan included in the project)

Allocated Budget: $1,975,103.55

- Approved cost through bidding: $1,439,591.93
- Installation: $80,625.00

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2. Server Replacement – Dell PowerEdge MX7000 Chassis

General Description
This initiative consisted of the acquisition and replacement of mission-critical server infrastructure to sustain the Campus virtualization platform, which hosts essential academic and administrative systems, including repositories, institutional databases, official portals, and student platforms.

Strategic Justification

- Ensures continuity of essential technological services
- Replaces infrastructure with more than a decade of operation
- Strengthens the reliability and security of the data center

Documented Timeline

- **Approval by Technology Fee Committee:** September 20, 2023
- **Formal bid request:** October 2023
- **Award by Bid Board:** December 2023
- **Configuration:** September 2024
- **Implementation:** January 2025

Allocated Budget: $417,111.04

- Approved cost through bidding: $368,120.65

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3. Replacement of the Institutional Telephone System

General Description
This project addresses the complete renewal of the institutional telephone system, originally installed in 2006, which was out of manufacturer support, had high maintenance costs, and was vulnerable to power interruptions.

The new platform provides scalability, integration with modern systems, greater resilience, and continuous technical support.

Institutional Impact

- Improves internal and external communication
- Supports student services and emergency situations
- Reduces long-term operational costs

Documented Timeline

- **Approval by Technology Fee Committee:** January 15, 2025
- **Formal bid request:** February 2025
- **Award by Bid Board:** May 22, 2025
- **Configuration:** October 2025
- **Implementation:** According to the awarded vendor's contractual schedule, with a scheduled date of April 11, 2026

Allocated Budget: $400,000.00

- Approved cost through bidding: $336,150.19

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4. Acquisition and Installation of an Electrical Generator for the Data Center

General Description
This project contemplates the acquisition and installation of backup electrical generators for the Campus Data Center, in order to ensure energy continuity for critical systems in the event of power outages.

The Data Center hosts essential platforms such as Mi IUPI, institutional email, academic and administrative systems, as well as the future relocation of the High Performance Computing Facility (HPCf).

Strategic Relevance

- Mitigation of operational risks
- Protection of critical equipment and data
- Institutional resilience in emergency situations

Documented Timeline

- **Approval by Technology Fee Committee:** August 29, 2025
- **Authorization by Bid Board:** September 3, 2025
- **Amendments and administrative processes:** September 2025
- **Installation:** December 2025

Allocated Budget: $247,500.00

- Approved cost through bidding: $247,500.00

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5. DTAA Audiovisual Laboratory

General Description
The Audiovisual Laboratory aims to train technical staff, replicate failures, test configurations, and validate updates of audiovisual equipment installed in more than 1,500 campus spaces, without affecting daily academic operations.

Key Benefits

- Reduction in response time to failures
- Optimization of preventive maintenance
- Direct support to all faculties and schools

Documented Timeline

- **Approval by Technology Fee Committee:** Academic Year 2023–2024
- **Implementation:** Upon receipt of equipment, through space habilitation at the DTAA

Allocated Budget: $17,851.88

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6. RESICAMPUS Project – Data, Communications, and Security Infrastructure

General Description
This project integrates the technological infrastructure of the RESICAMPUS student housing complex, including data networks, perimeter security, camera systems, and wireless connectivity, aligned with the existing institutional architecture based on Fortinet technology.

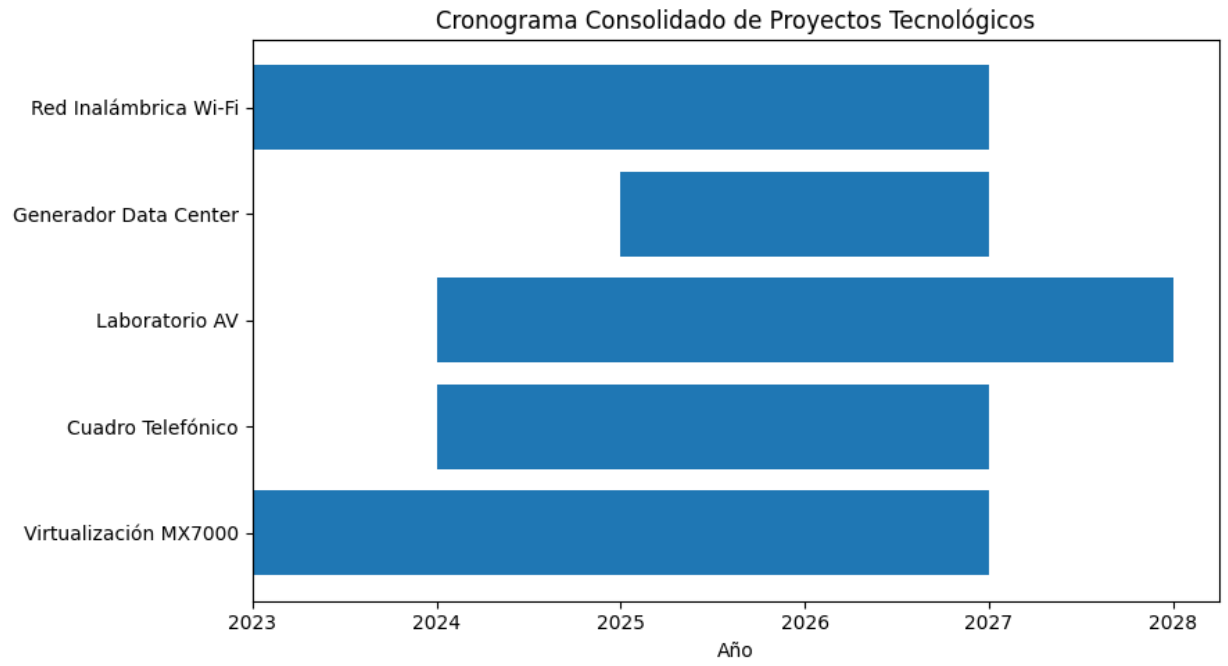
Strategic Focus

- Institutional technological uniformity
- Asset security and protection
- Integration with Campus platforms

Documented Timeline

- **Formal bid request:** February 3, 2026
- **Technological uniformity justification:** February 9, 2026
- **Approval by Bid Board:** February 12, 2026
- **Execution:** According to the phases of the RESICAMPUS Project and availability of FEMA/CDBG funds

Allocated Budget: $663,500.00



V. Current Operational Processes and Future Strategic Projects

In addition to the strategic technological initiatives described in this Plan, the Division of Academic and Administrative Technologies (DTAA) is responsible for the ongoing management, maintenance, and assurance of institutional licensing for applications used directly by the student population. These platforms include Adobe, SPSS, and Zoom, which are fundamental tools for supporting teaching, research, academic collaboration, and teaching–learning processes.

Likewise, the DTAA administers the licensing of the Integrity server that supports the Student Information System (SIE), which constitutes a mission-critical platform for the academic and administrative operation of the Campus.

These recurring operational processes are supported through allocations from the University of Puerto Rico (UPR) General Fund, assigned to the Río Piedras Campus in accordance with the institutional formula for distributing resources associated with the Technology Fee. This funding scheme ensures the sustainability, continuity, and availability of essential technological services that support the Campus's core functions.

As part of medium- and long-term institutional strategic planning, the DTAA projects the implementation of alternative energy generation and storage mechanisms, including solar panel systems and backup batteries for communications rooms. This initiative aims to ensure continuous operation of data transmission services in facilities where courses are offered and administrative

processes are conducted, strengthening institutional resilience against power supply interruptions and other emergency events.

Similarly, as a future strategic project and in coordination with the Division of Security and Risk Management, the DTAA contemplates the planned replacement and relocation of campus emergency phones, with the objective of optimizing coverage, accessibility, and effectiveness of communication systems for handling critical situations, in accordance with best practices in institutional security and risk management. This effort will also be complemented by an emergency signage plan using the existing audiovisual infrastructure.

IV. Executive Conclusion

The Comprehensive Technology Plan of the Río Piedras Campus represents a structural transformation of the institutional technological infrastructure, supported by formal processes, strategic vision, and direct alignment with the university mission.

The coordinated execution of these initiatives:

- Strengthens institutional resilience
- Ensures academic and administrative continuity
- Modernizes services offered to students, faculty, and staff
- Positions the Campus as a leader in technological management within the university system

This Plan constitutes a high-impact strategic investment aimed at sustaining the academic, research, and administrative development of the Río Piedras Campus in the medium and long term.