



DIVISION OF  
INFORMATION  
TECHNOLOGY  
STRATEGIC PLAN

Empowering Effectiveness, Innovation, and Collaboration



2019 – 2024

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Page 12: ATI Media Studio Services, DIT

Page 14: ATI Media Studio Services, DIT



# TABLE OF CONTENTS

Letter from the Vice President & CIO . . . . . i

Introduction . . . . . 1

Our Mission and Values. . . . . 2

Our Strengths. . . . . 3

The Forces That Shape Us . . . . . 4

DIT’s Five Strategic Initiatives. . . . . 6

    Innovate and Integrate Administrative Systems . . . . . 7

    Enhance Research Technology Systems and Services . . . . . 8

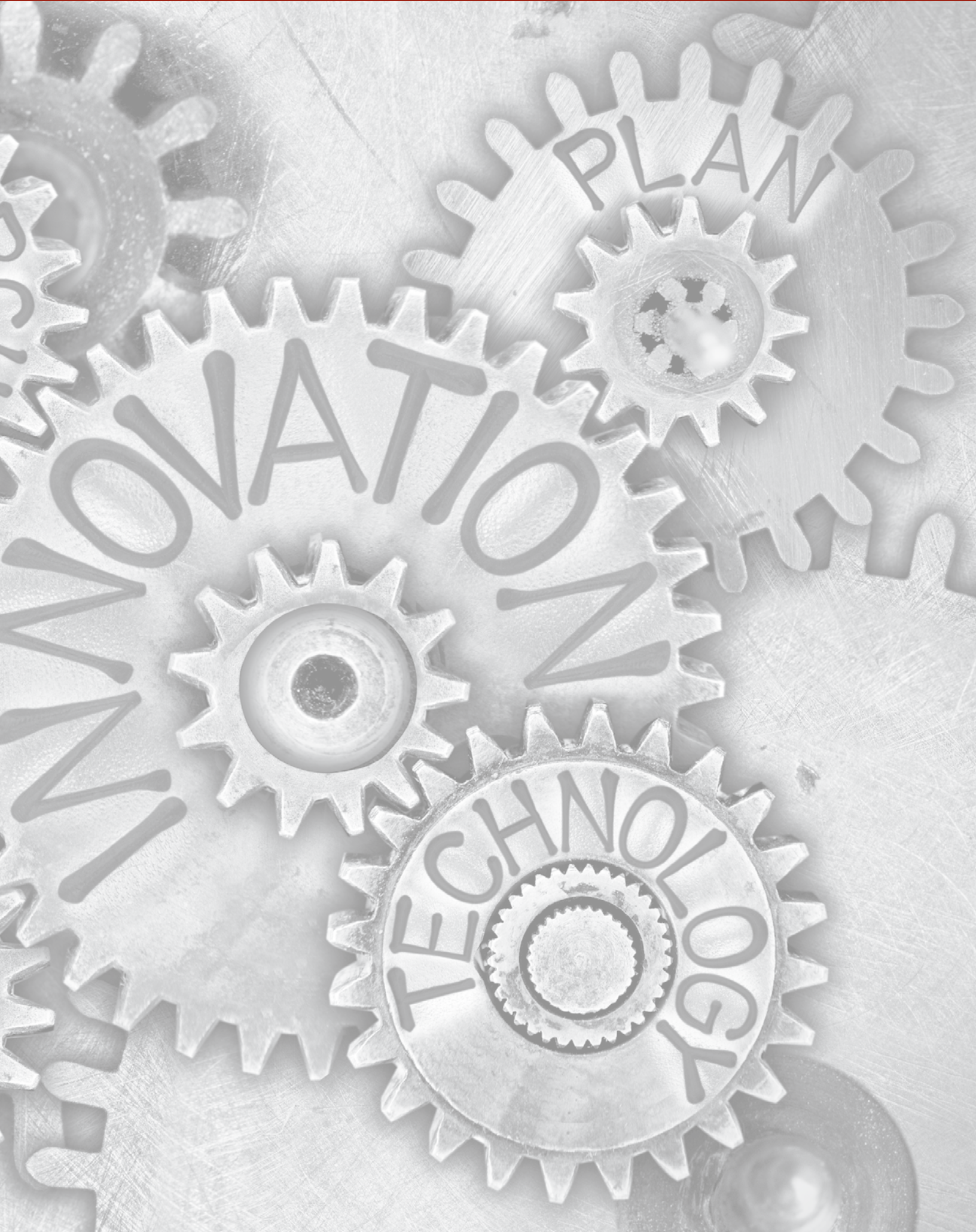
    Promote Excellent, Secure, and Compliant  
    IT and Services . . . . . 9

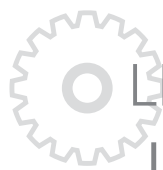
    Foster Partnerships and Collaboration . . . . . 10

    Develop and Empower Our Talent . . . . . 11

Implementation . . . . . 13







## LETTER FROM THE VICE PRESIDENT & CIO

# Jeffrey K. Hollingsworth



The Division of Information Technology (DIT) offers a wide range of services and sophisticated technology to enhance instructional, research, and administrative activities throughout the university. The technical support, training, computer discounts, and software access we offer promote student, faculty, and staff digital fluency. The wired and wireless networks we manage enable more than 50,000 people to communicate each day. Systems and tools we develop and procure serve university needs. Consulting services related to technology use, business processes, project planning, software development, server operations, data security and more help university community members achieve their goals.

To focus and prioritize DIT's efforts for the next several years, we developed a new strategic plan. Through many sessions, a broad team of DIT professionals compiled input from faculty, students, staff, and business partners to build a plan that will guide our decisions during the next three to five years.

For my colleagues in DIT, the success of this plan depends on each and every one of us. Let's all work together to make it a reality.

Please learn more about the Division of Information Technology through our strategic plan and participate in our endeavors to meet the university's needs for the future.

A handwritten signature in black ink that reads "Jeff Hollingsworth".

Jeffrey K. Hollingsworth, VP & CIO  
Division of Information Technology  
University of Maryland

# INTRODUCTION

Higher education is experiencing an unprecedented demand for technologies that improve the ways knowledge is produced, managed, disseminated, accessed, and secured. Effective and equitable use of these technologies must be ensured at all levels of our university.

The rapid and innovative ways individuals are communicating and collaborating locally, nationally, and internationally constantly change how technologies are designed, acquired, and delivered. It is paramount that we continue to lead by drawing on the best practices and potential of new information and communication technologies in order to ensure quality and high standards for academic and administrative practices. This speed of change means that DIT must increase the pace at which we offer, adapt, and withdraw services in order to meet evolving demands.

Strategic planning began in November 2018, initiated by Vice President and CIO Jeffrey K. Hollingsworth with strong support from President Wallace Loh and Senior Vice President and Provost Mary Ann Rankin. This exercise allowed DIT to recognize our strengths and identify strategic areas where investments should be made to address the needs and priorities of the University of Maryland.

The development of this plan occurred in partnership with university community members. To develop a plan that was factual and feasible, we sought input about their perceptions of DIT, what our customers need from us, and how they think those needs will be changing in the future. Over several months, we held 14 listening sessions with different stakeholders and engaged closely with UMD community members to learn what is working for them and what can we do to expand and improve the quality of the IT services we offer.

Overall, we connected with more than 300 campus leaders, administrators, students, faculty members, and staff. Feedback and suggestions were solicited through more than 30 sessions with the UMD community and input was also received from other stakeholders, including peer institutions and corporate partners.

DIT staff and partners have worked together throughout the strategic planning process to help us define our mission and values.



# OUR MISSION AND VALUES

The Division of Information Technology empowers students, faculty, and staff to effectively and equitably use information technology to teach, learn, innovate, collaborate, and achieve the University of Maryland's mission. We are a division that has knowledgeable and diverse staff who strive to build and maintain sound, advanced, secure information technology systems that serve the University of Maryland, the state of Maryland, and our partners in the broader higher ed and research communities.

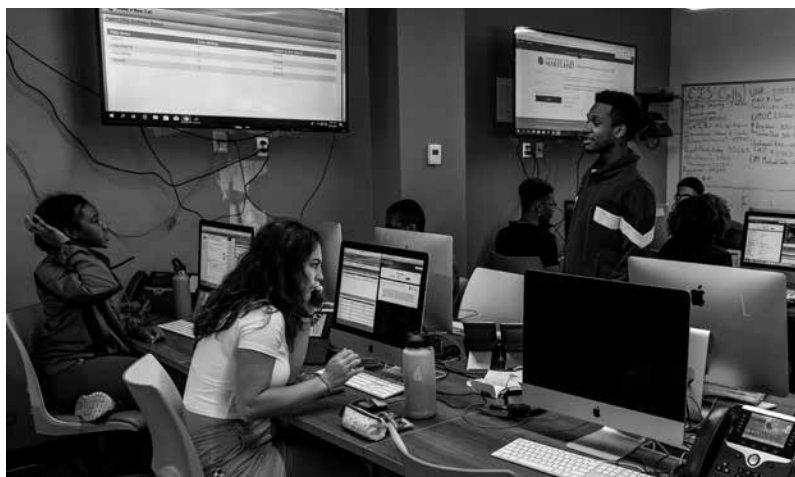
Over the coming years, we will build on our unique strengths and expand our systems and services to sustainably meet needs for transformational research and foster innovative teaching and learning environments. In addition, we must use information and communication technology to modernize our administrative workflows and streamline the flow of information between university business functions and departments.

## Through its mission, the Division of Information Technology is committed to:

- Innovating the university's technology systems and service delivery.
- Leading research computing, data analytics, high-performance computing, and network technology.
- Partnering in a way that effectively and ethically guides people to be creative in a digitally connected world.
- Fostering a culture of engagement and service, making DIT a great place to work.
- Supporting the university's administrators and scholars as they use technology to accomplish their goals.

## The Division of Information Technology's core values are:

- **Excellence in people, systems, and services**  
We are talented staff who work to ensure that our systems and services are reliable, useful, automated when feasible, and systematically evaluated.
- **Diversity and inclusion of people and ideas**  
We are an inclusive team that encourages the free exchange of ideas with mutual regard and consideration for our differences.
- **Collaboration**  
We are a holistic team that works collaboratively to achieve our mission by respectfully listening to our clients and our colleagues.
- **Discovery and innovation**  
We are explorers who value new ideas and are willing to take risks and embrace failure as we build and solve for the future.
- **Integrity, transparency, and trust**  
We are transparent about our decisions, accept full responsibility for our plans and actions, and believe that we will get the right results if we do the right things.



# OUR STRENGTHS

As we worked to distill the top initiatives that the division will invest in during the coming years, strengths that are vital to our core mission were identified by the university community, external partners, and our staff. The Division of Information Technology is committed to maintaining excellence in these areas:

## We safeguard IT systems and UMD data

Facilitate secure and safe information technology systems and services by utilizing technology, compliance, and community engagement to reduce the risk of inappropriate disclosure, modification, or loss of information assets.

## We enable innovative teaching and learning technologies

Design accessible, world-class learning experiences in both digital and physical environments and provide evidence-based instructional support services in response to the ever-evolving culture of learning.

## We provide front-line support for our customers

Provide a quality, customer-focused "single point of contact" service desk for both general questions and information about UMD, as well as to be the primary support team for technology offered in the DIT service catalog.

## We make software centrally available and accessible

License a comprehensive range of software and tools for download and use by UMD students, faculty, and staff, as well as maintain the TERPware website for ease of access.

## We maintain and enhance infrastructure to enable communication

Provide a reliable and responsive telecommunication and network experience to anyone who utilizes voice and data communication systems across the entire university.

## We have high-quality staff members

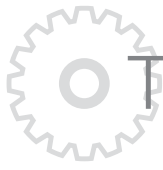
Develop a talented and motivated workforce that takes a customer-centric approach to their daily activities and works behind the scenes to ensure customers get a timely, quality, and consistent experience.

## We facilitate high-performance computing

Furnish reliable high-performance computing services for researchers that require large-scale parallel execution environments.







# THE FORCES THAT SHAPE US

Global trends in education, information technology, and society drive our institutional decisions and impact our work at the University of Maryland. This plan accounts for the following trends:

- The need to anticipate and adjust to ever-changing social and political priorities as well as funding availability at the local, national, and international levels.
- The increasing demand for innovative educational content, methodologies, practices, and means of delivery designed to foster collaboration, critical thinking, and creativity.
- The changes in demographics, which highlight the importance of promoting a context of cultural diversity and pluralism.
- The power of machine learning to build innovative artificial intelligence solutions and the necessity of data and analytics that can drive institutional decisions rather than just reflecting them.
- The increased expectation for safe and reliable network access anywhere and everywhere.
- The importance of successfully implementing hosted software solutions and adopting a cloud-first strategy for new systems and the struggle to achieve the full value of moving enterprise systems to the cloud.
- The juxtaposition of the increasingly pervasive and indispensable use of mobile devices and the digital divide faced by those who have restricted access and/or fluency to equally embrace the full potential of mobile technology.
- The intensifying requirements for data security, privacy, and access in a world that is unprepared to deal with the rise of misinformation and fake news, the dependence on social media, and the lack of digital responsibility.
- The inexorable need to retain qualified and motivated employees as a critical factor in our organization's success.

***“We can only see a short distance ahead, but we can see plenty there that needs to be done.”***

*~Alan Turing, pioneer of theoretical computer science and artificial intelligence*





# DIT'S FIVE STRATEGIC INITIATIVES

We endeavor to leverage and build on our organizational strengths and capabilities to create the best future for the university, as well as its partners and collaborators. To achieve this, we will focus on and invest in five initiatives:

## 1 INNOVATE AND INTEGRATE ADMINISTRATIVE SYSTEMS

DIT will partner with UMD stakeholders to transform administrative systems and services in a way that provides timely, comprehensive, and accurate information to our university community, eases administrative burdens, integrates institutional data, and streamlines the flow of information to maintain consistency between university business functions and departments.

## 2 ENHANCE RESEARCH TECHNOLOGY SYSTEMS AND SERVICES

DIT will lead a university-wide effort to design, build, and support state-of-the-art technology that encourages researchers across all disciplines to create, explore, and discover.

## 3 PROMOTE EXCELLENT, SECURE, AND COMPLIANT IT SERVICES

DIT will be recognized for its efficient systems, quality of services, streamlined operations, and resource stewardship.

## 4 FOSTER PARTNERSHIPS AND COLLABORATION

DIT will partner with university stakeholders to collaboratively shape the vision, pace, and priorities of IT systems and services and to create policies that balance institutional interests and support the UMD mission.

## 5 DEVELOP AND EMPOWER OUR TALENT

Within DIT, we have careers, not just jobs. Our workforce will be well-trained, knowledgeable, and recognized for its strong commitment to our mission. DIT will maintain a diverse workforce that is committed to increasing inclusiveness and collaboration as the norm, not the exception.

# 1 INNOVATE AND INTEGRATE ADMINISTRATIVE SYSTEMS

## What is our objective?

DIT will partner with UMD stakeholders to transform administrative systems and services in a way that provides timely, comprehensive, and accurate information to our university community, eases administrative burdens, integrates institutional data, and streamlines the flow of information to maintain consistency between university business functions and departments.

## Why is this relevant?

To meet our mission, this institution, more than ever, needs to take a holistic approach with people, processes, and technology. By modernizing our administrative processes and systems, the university will be able to serve our students more efficiently with an improved experience.

## What are our specific planned actions?

- DIT will partner with stakeholders to provide support with technology solutions that improve the administrative systems.
- DIT will collaborate with stakeholders to identify ways to improve data management across the institution (including access, consistency, and accuracy) for faculty, staff, and students.
- DIT will work with stakeholders to ensure new systems create a unified and easy-to-use experience for students and employees.
- DIT will be a critical member of the institutional team that is developing TerpEngage (for customer relationship management) and the new enterprise resource planning (ERP) system for student information and human resources.

## How will we know if we have succeeded?

- DIT is recognized by university stakeholders as a critical partner that helps enable effective new business processes and systems.
- There is a reduction of duplications, mistakes, and missing records in the administrative systems.
- By July 1, 2020, a contract will be awarded for the new ERP system.
- By July 1, 2024, all modules of the new ERP system will be live and old systems retired.
- Our student information system will be student-centric not administrator-focused.
- In collaboration with stakeholders, we will monitor student satisfaction (through focus groups, surveys, etc.) to ensure that the new system is easy to use and provides information relevant to student success at UMD.



# 2 ENHANCE RESEARCH TECHNOLOGY SYSTEMS AND SERVICES

## What is our objective?

DIT will lead a university-wide effort to design, build, and support state-of-the-art technology that encourages researchers across all disciplines to create, explore, and discover.

## Why is this relevant?

State-of-the-art technology is an essential foundation for scholarly work at premier research institutions. For UMD researchers to drive innovation, they must have easy access to modern technology relevant to their discipline.

## What are our specific planned actions?

- Identify a team of talented staff able to redesign, promote, and support research technology services that meet the diverse needs of researchers and their collaborators.
- Provide a dedicated, advanced, compliant, cost-effective, and easy-to-use research computing environment (both on-premise and in the cloud) that meets the growing needs of our research community, including sensitive and controlled unclassified information.
- Update documentation, design training, and expand our technology consultation for researchers during the entire research lifecycle (from planning grants to developing data management plans and conducting research).
- Collaborate with the Division of Research, academic units, and research centers to develop a sustainable research technology plan that aims at optimizing investments and minimizing administrative overhead and redundancy.

## How will we know if we have succeeded?

- By December 2020, we have an expanded team of talented staff to lead our efforts to redesign the existing services and innovate new ones.
- We have deployed an environment that supports research that deals with sensitive and controlled unclassified information before January 2020.
- We have reviewed and restructured our existing research technology services to ensure compliance and cost-effectiveness and to reduce redundancies.
- We have tracked trends in usage of research technology systems and benchmarked our service model against other Big Ten Academic Alliance universities by September 2020.
- We have published a “Three-Year UMD Research Technology Plan” that is feasible, sustainable, and ensures a long-term funding strategy to support advanced research practices before November 2020.
- By December 2022, we have become recognized as an institution that has rapidly transformed its research technology and services and is sought after as an equal partner with other leading institutions within the Big Ten Academic Alliance research community.



# 3 PROMOTE EXCELLENT, SECURE, AND COMPLIANT IT AND SERVICES

## What is our objective?

DIT will be recognized for its efficient systems, quality of services, streamlined operations, and resource stewardship.

## Why is this relevant?

Improving the quality and efficiency of our services allows the university community to perform their learning and work functions effectively and without impediment.

## What are our specific planned actions?

- DIT will create a portfolio of projects specifically aimed at improving service delivery at UMD.
- DIT will develop a standard framework for the initiation, development, delivery, assessment, and decommissioning of its services to enhance valued services and identify those appropriate for decommissioning.
- DIT will develop and execute a strategic communications plan to educate the university community about available DIT services and how they can improve productivity.
- DIT will implement a single unified billing/invoicing process and network costing model to provide greater transparency into how and when things are billed.
- DIT will build and lead a culture of secure and compliant IT service campus-wide.

## How will we know if we have succeeded?

- By May 2020, new services enter their operation phase with clearly defined objectives, labor and dollar costs, charging model, assessment criteria, and thresholds for decommissioning.
- We automate data collection necessary for service evaluation by May 2020.
- By July 2020, we have formally assessed 13 services and determined their level of quality, cost, and utilization.
- We have moved 10 chargeable services into the unified billing process by December 2020.
- We have six services that are available as self-service automated catalog items by July 2020.
- By September 2020, partners and customers have increased confidence in DIT by understanding the value they receive for their bundled and a la carte services versus what they pay.
- We have observed year-over-year increases in usage of DIT services by July 2021.
- We see improvement of customer support survey feedback scores by July 2021 as well as expanded means of customer feedback.



# 4 FOSTER PARTNERSHIPS AND COLLABORATION

## What is our objective?

DIT will partner with university stakeholders to collaboratively shape the vision, pace, and priorities of IT systems and services and to create policies that balance institutional interests and support the UMD mission.

## Why is this relevant?

To become recognized for fostering innovation in technology and service delivery, we have to be up to speed with (and ultimately ahead of) trends. We must cultivate partnerships within the division and throughout the university to guide critical IT decisions and to proactively identify additional opportunities.

## What are our specific planned actions?

- DIT will review and ensure that the current governance structure (IT Council bylaws) works to provide strategic recommendations.
- DIT will identify a strategy to proactively collaborate and communicate with university stakeholders, as a trusted partner, on decisions pertaining to the IT systems and services used at UMD.
- DIT will actively engage with its staff when making technical decisions and determining administrative initiatives by creating at least four formal opportunities to systematically gather continuous input from employees (small focus groups, town halls, etc.).
- DIT will make its priorities public and transparent to the university community.

## How will we know if we have succeeded?

- DIT senior leadership has reviewed the current University Senate bylaws to ensure meeting cadence and inclusive representation of all stakeholders (faculty, staff, and students). This will be done by the end of 2019.
- We have collaborated to develop and implement a communication plan to inform strategic decisions about UMD IT systems and services.
- We have hosted at least two campus-wide events to highlight successful partnerships, share data, provide updates, and gather feedback by December 2021.
- DIT directors and managers have been invited to attend (ad hoc) governance group meetings to listen to, receive, and synthesize feedback.
- Before June 2020, we have published an easy-to-consume website that clearly shows up-to-date information about current projects and initiatives that are being conducted by DIT staff.



# 5 DEVELOP AND EMPOWER OUR TALENT

## What is our objective?

Within DIT, we have careers, not just jobs. Our workforce will be well-trained, knowledgeable, and recognized for its strong commitment to our mission. DIT will maintain a diverse workforce that is committed to increasing inclusiveness and collaboration as the norm, not the exception.

## Why is this relevant?

In order for innovation to occur, the division must foster an environment where each employee is valued, heard, and encouraged to think outside of the box. In every aspect of a business, diverse backgrounds and skills are needed for achieving success and are key to attaining growth. While striving towards a more collaborative environment, DIT team members must feel empowered to perform as individuals and to work together toward a common task or project goal.

## What are our specific planned actions?

- We will define alternative tracks (technical and management) for professional advancement within DIT, including career paths that outline knowledge, skills, and abilities required for promotion.
- We will value well-trained and knowledgeable staff by supporting professional development opportunities appropriate to their current work as well as their career aspirations.
- DIT leadership will be advocates for and stewards of a diverse and inclusive workplace that is equitable and free of bias.

- We will build resiliency into our team so that we are prepared for staff unavailability and free up time for our staff to test new ideas and work on innovative projects.
- We will leverage the Gallup Thriving Workplace survey to benchmark and track employee engagement and satisfaction.
- We will identify a variety of ways to reward staff members who consistently exemplify DIT values and support the mission of UMD with innovative solutions to IT challenges.

## How we will know if we have succeeded?

- We have developed, approved, and published career paths that describe technical and management tracks and outline how DIT employees will have equal opportunity to fill vacant positions. This will be done by December 2020.
- We have conducted analysis focusing on single points of failure and gaps in knowledge and identified key knowledge retention needs by April 2020.
- Managers and team leads have designed a staff backup plan/strategy so that time can be intentionally carved out for participation in innovative work.
- 35% of DIT staff have participated in professional development opportunities.
- We have partnered with the Office of Diversity and Inclusion to deploy a staff climate survey and to provide training opportunities focused on unconscious bias, active listening, and bystander awareness.





*“Diversity is about headcount, inclusion is about making those heads count.”*

*~Unknown*



## IMPLEMENTATION

The Division of Information Technology understands that it is critical in helping the University of Maryland successfully adapt to the growing role of technology in providing world-class teaching, research, and administrative services. The execution and success of this plan will depend on the work of DIT staff and the continued engagement of UMD community members

We are committed to realigning our financial priorities and designating leaders across the division who will be empowered to lead the implementation of all five strategic initiatives. We must responsibly plan our existing resources and ensure that we have personnel and support necessary to undertake these endeavors.

Success of this plan will require transparency about the activities underway, the progress made, and the related impacts and outcomes. Rigorous project management will ensure that we hold ourselves accountable, maintain momentum, measure progress, and, hopefully, celebrate advancements along the way.

Finally, the implementation of this plan will require a lot of flexibility, agility, and discernment across our talented staff to partner with faculty, staff, students, and business partners during the coming years.

*“We are what we repeatedly do. Excellence, then, is not an act but a habit.”*

*~ Aristotle*



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