tech matters

Developing a Technology Strategy in Workplace Design

GSA

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the enterprise technology ecosystem

appendix

The U.S. General Services Administration's (GSA) Workplace Strategy Program in Public Buildings Service is dedicated to promoting innovative, flexible, and smart workplaces that can serve as models for other federal agencies. While working with federal agencies to support the federal workforce to do the work of a 21st century government, we realized that technology plays a crucial role in the way people work. Technology continues to change at a rapid pace and we felt compelled to develop a digital strategy in order to better integrate technology and workplace to enable agencies to better fulfill their missions. This document, Tech Matters, serves as a framework for us and other federal agencies to have the conversation about technology at the beginning of workplace strategy conversations thereby integrating technology into the design and implementation process.

From infrastructure to hardware to applications and analytics, a vast number of solutions now exist to support federal agencies in carrying out their missions, and increasingly, personal experience with technology drives customer demands and expectations for professional environments is that keep pace with what they see elsewhere. At the same time, we in the federal government are required to fulfill our missions with tightening budgets and real estate footprint reduction. Reducing facilities costs opens the possibility to redirect money back into the core mission, and leveraging technology is integral to this process. We at the GSA sit at the nexus of service to people, workplace, and

technology, and so are uniquely positioned to undertake the process of figuring out how to do this. We deployed the Design Thinking framework in order to understand how federal leaders might better integrate technology in the design of physical and virtual workplaces and plan with user experience in mind.

We gathered input from agency Chief Information Officers (CIOs), private sector leaders, experts in academia and our own staff to understand some of the problems we might encounter and how to begin tackling them. What we discovered is that very few organizations have figured out how to integrate workplace and technology design; there is gap regarding both strategy as well as possible implementation. Thus, we developed our framework called the Enterprise Technology Ecosystem (ETE), which will help strategists with a common definition of the technology. Additionally, we need digital architects to work in conjunction with workplace strategist in integrating technology into workplace design and implementation. This digital architect will serve as a technology generalist, making informed decisions about integrating workplace design and the ETE at every stage in the planning process.

By considering technology at the earliest stages in building or renovation projects, we can avoid costly changes, we can plan with agility and user experience in mind, we can reflect the organization's values, and we can begin to think about technology as an integrated component of workplace, not just a tool to get the job done. We hope this framework provides a renewed approach across the federal government and in the global real estate practice, utilizing digital architects and developing digital strategies to foster workplaces that embrace mobility, collaboration, and open government.

tech matters

WHY 'TECH MATTERS?'

making the case for technology integration

The principles of design call us to create workplaces, tools, and processes that revolve around the human experience. The commoditization of technology, pursuit of sustainable solutions, and the importance of effective government have created the possibility for federal, state, and local agencies to demonstrate thoughtful stewardship through the integration of workplace and technology. The digital age gives voice to a rising demand for agency leadership in providing workplaces that benefit citizens and public servants and bring the best thinking to bear to solve the world's toughest problems. The integration of workplace and technology creates possibilities inaccessible until now. Tech Matters frames the opportunity for government excellence in design.

Federal employees across the nation are required to fulfill the mission of their agency in a highly constrained environment. Budgets continue to tighten. Customer demands and expectations are more and more driven by personal experiences in the digital age. Leaders at all levels often wonder why their professional environments cannot keep pace with what they see elsewhere. In response to the fiscal climate, agencies continue to take measurable steps to reduce their real estate footprint. A reduction in facilities costs can open the possibility to redirect money back into the core mission.

WHY 'TECH MATTERS?'

Alongside this reality is the fast rate of improvement in technology. From infrastructure to hardware to applications and analytics, a vast number of solutions now exist to support federal agencies in fulfilling their promise to customers- whether those customers are other federal agencies or the citizens they serve.

By virtue of our position in the federal landscape, GSA has the ability to transform the way federal agencies engage employees to efficiently and effectively deliver products and services. Technology integration is critical to a productive and engaged workplace. The strategy for managing this integration must begin with the employee, define the scope of technology being considered, and account for the conditions and con- straints common to federal agencies today.

We have leveraged our position in the market to utilize a design thinking methodology that tackled the question, **how might federal government better integrate technology in the design of physical and virtual workplaces?**

The integration of technology and workplace needs to be considered at the beginning of any strategic planning process.

WHAT IS 'TECH MATTERS?'

Technology is no longer just a feature of how we work, it is rapidly the defining factor for the way we work.

The design of work today and in the future demands a perspective that blends tools with place and accounts for the rise in digital literacy that will be required across all levels of the workforce. Integration of technology solutions across workplace and tools can be enhanced by designing with the following principles in mind:

Look Forward:
The vision and strategy of the organization should serve as a guidepost for any design project

Remember the User Experience:
The user's experience should be factored into any design feature

Take into Account the Whole System:
Humans, workplace and technology interact within an ecosystem; distinguishing the layers of this system may help highlight the interdependencies between workplace and technology requirements

WHAT IS 'TECH MATTERS?'

Tech Matters is designed as a method anchored in human centered design. **The purpose is to orient the technologist to features of the physical environment** while also orienting the architect or interior designer to the features essential to addressing the digital environment.

Tech Matters is not a step by step tutorial, it is not a manual, it does not advocate for one proprietary system or solution over another.

Tech Matters does promote intentional inquiry, it does promote increased collaboration across workplace and information technology architects, it does establish a new literacy that physical and digital designers must be familiar with to take advantage of emerging technological advancements.

The distinctions of the technology ecosystem will likely endure, despite the rapidly changing set of solutions that define it today.

This method embraces the unique needs of any workplace design project while highlighting what must now and in the future define conversations when building or renovating workplaces.

Tech Matters is:

- A methodology
- Early and intentional
- Applicable over a 5-year time frame, while aspiring for timelessness
- Aimed to inform
- Directional

- An outline of current gaps
- Considerate of human behavior
- Straightforward
- Work Pattern agnostic

Above all, Tech Matters promotes a generalist approach to technology in the federal workplace. In many ways, it is a framework that anticipates future evolutions.

MANAGING TECH TENSIONS

The integration of technology into the design of workplaces poses a number of significant opportunities for the federal workforce. While certainly not an exhaustive list, the following come readily to mind.

- The adoption of new, virtual modes of working.

- The elimination of redundant and / or underutilized spaces and technologies.

- The potential for seamless workflows across physical, geographical, and organizational boundaries.

- The opportunity for real-time, on demand information delivered where and when employees need it most.

- The promise of more interactive, intuitive, and engaging workplaces.

However, the opportunity for agencies to adopt and integrate established and emerging technologies into the workplace must take into consideration the inherent challenges and threats that each agency faces uniquely.

Taken together, those opposing forces pull strategists and designers in opposing directions. There are inherent tensions in the adoption and implementation of technology, regardless of scale. Workplace strategists and program managers repeatedly face the following tensions as they coordinate their planning efforts.

- **Centralization vs. Distribution**

- **Existing Infrastructure vs. Emerging Technology**

- **Expense vs. Investment**

- **Legacy Culture vs. Organizational Change**

- **Security vs. Flexibility**

- **Standardization vs. Customization**

These tensions emerged from interviews with federal workplace managers, experts in Academia, Nonprofit, IT, and the private sector.

MANAGING TECH TENSIONS

Centralization vs. Distribution

In working with all federal agencies, **GSA has observed that different customers have different capabilities for technology transformation.** Agencies that have centralized IT decision- makers and policies can scale and modernize quickly. Centralized technology implies consolidated authority and single-point decision making. **While centralized agencies may scale rapidly, they may also be more risk averse,** because centralized decisions quickly cascade across the entire enterprise.

Agencies with distributed IT offices and autonomous bureaus and services must reconcile requirements, needs, and opportunities in the face of existing IT rules and policies. **While distributed IT requires a higher degree of coordination, it also opens up the possibility for experimentation at a smaller scale.** Pockets of innovation can allow pilot projects and prototypes to prove themselves without a high-degree of enterprise risk. Developing a digital strategy within a centralized IT structure can have more of an impact to effect change.

Existing Infrastructure vs. Emerging Technology

New technologies present promising alternatives to the traditional ways of doing work. The extensive installation of wireless networks has empowered people to move seamlessly through the digital workplace. File-sharing platforms have enabled employees to collaborate on documents in real-time, even when separated by great distance. Cloud-based services allow employees to work across devices. The list goes on.

At the same time, **the adoption of new technology has a shadow cost – the obsolescence of existing technology and, in some instances, infrastructure.** This challenge is exacerbated by the speed at which technology evolves and is compounded by the necessity for training whenever a new technology is implemented. Project managers must scope the full impact of technological shifts and communicate accordingly. Similarly, workplace providers should determine the appropriate pace of change when modernizing the workplace. **Implementing a strong and flexible infrastructure allows an organization to more easily evolve with technology, instead of standing in opposition to it.**

MANAGING TECH TENSIONS

Expense vs. Investment

There are two ways to account for the cost of a project. Many leaders consider real estate and technology an expense that the agency must bear. Others recognize that **the cost of workplace projects is more than likely an investment in a strategic asset that the organization will reap in the years to come.** While it might seem a trivial turn of phrase, a project manager's approach must consider the thinking of agency leadership. When faced with an expense-based mindset, project managers will be challenged to make structural changes to technology platforms and superficial fixes will be more palatable. Project managers must be aware of the compounding effect of such fixes and work with agency leaders to implement sustainable solutions with real, long-term benefits. Well integrated technology can ease budgetary problems and provide solutions, enabling of a workplace that is more efficient, and fostering a workforce that is more engaged and productive.

Legacy Culture vs. Organizational Change

The feasibility of any technology strategy depends upon the willingness of the organization to adapt. An "old school" management mentality persists in pockets, and here leaders are wary of new fixes to old problems. Leaders become skeptical of easy fixes. Skepticism is not necessarily a negative impulse, as experienced leaders have the perspective of years of service. They have seen fads come and go.

When real benefits to technology adoption exist, though, organizational change becomes a strategic imperative. **Project managers must work with federal agencies to build a compelling case for change, and then, the real work begins.** Organizations have inertia and altering the course of an organization's trajectory is a significant challenge. Leading organizational change is an intrinsic component of any strategic initiative and should be considered at the outset.

MANAGING TECH TENSIONS

Security vs. Flexibility

Security is no longer just about protecting the physical perimeter from intruders. It is about ultimately following the data to make it secure. Be they viruses, spiders, bots, hackers, zombies, or bear some other similarly scary name, **cyber-threats to federal agencies have become a foremost concern and present a host of risks that the federal workplace manager must be cognizant of** as technology continues to transform the office.

At the same time, federal workers expect the same degree of flexibility and fluidity with respect to technology that they enjoy in their personal lives. Managers should no doubt prioritize the security of the agency. That said, they should also seek opportunities to reduce the rigidity of work once employees are securely within the enterprise. **Following the National Institute on Standards and Technology's framework on security control is essential to federal government** workplace design.

Standardization vs. Customization

There are obvious gains to standardizing component technologies, including acquisition cost, repair and replacement procedures, interoperability of components, and technology training, among others.

However, some jobs are unique and accordingly demand unique tools. When stringent standards persist in the face of attractive alternatives, managers will field requests for exceptions and custom solutions. These should be considered at the discretion of the agency, bearing in mind that **custom technologies run a higher risk of obsolescence and present separate security risks from the rest of the enterprise.**

the enterprise

technology

ecosystem

THE ENTERPRISE TECHNOLOGY ECOSYSTEM

overview

The Enterprise Technology Ecosystem (ETE) is a framework for managing the layers of technology in the federal workplace. Each layer consists of unique components that perform discrete but related functions. The ETE is akin to architectural language, wherein the layers of construction are site and foundation, structure, building systems, building envelope, finishes, furniture, and so forth.

Generally speaking, the bottom, more foundational layers support those that follow.
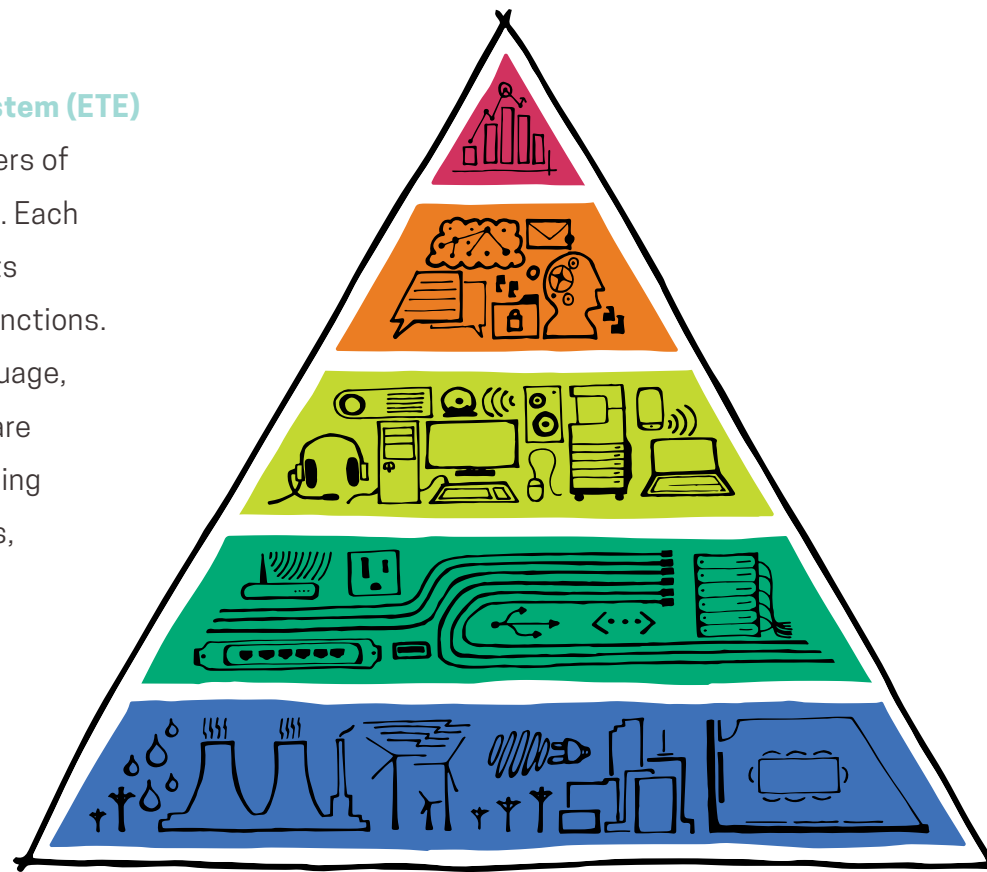
analytics

collaboration tools

equipment & devices

interface

infrastructure & environment

THE ENTERPRISE TECHNOLOGY ECOSYSTEM

Layers of the ETE proceed in a similar manner from:

- **Infrastructure and Environment,** like network hardware to

- **Interface** components, like horizontal and vertical cabling and ports to

- **Equipment and Devices,** like hardware and monitors to

- **Collaboration Tools,** like software applications that enable communication to

- **Analytics,** and other means of managing and analyzing accrued data.

The ETE is a so-called ecosystem because component layers rely on previous layers to perform their respective functions. Similarly, technological changes to the upper layers of the ecosystem have implications for the preceding layers, and in some cases might render them obsolete.

Each enterprise has its own ecosystem. That said, as networks evolve, information flows more readily from one enterprise to the next. In many instances, the result is an improvement in access, collaboration, and workflow. However, under hostile conditions, outside threats pose serious security risks for every ecosystem. As such, strategists and program managers must balance networking opportunities with security measures.

The ETE framework can be integrated into a variety of scenarios, whether an organization is constructing a new space, renovating an existing one, or simply looking to shift their mobile distribution strategy. Additionally, each of these layers is not mutually exclusive. For example, an agency that intends to deploy IoT (Internet of Things) technology should consider the requirements of this technology across all layers of the ETE, from infrastructure through devices to manage and tools to analyze.

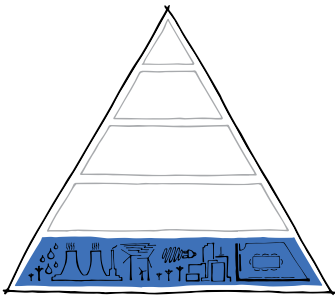# THE ENTERPRISE TECHNOLOGY ECOSYSTEM

framing questions

When working to develop agency-specific technology strategies,
it is useful to begin with a few high-level framing questions:

1. What do you want to achieve?

2. What work patterns support that vision?

3. How does technology support the work?

4. What technology is immediately available and/or on the horizon?
   Is it practical? Is it financially viable?

5. How does your preferred technology integrate into your existing infrastructure?

6. What is your procurement plan? Are there any additional sources of funding?

INFRASTRUCTURE & ENVIRONMENT

The first "layer" of the Enterprise Technology Ecosystem involves the physical building, the surrounding environment, and how those are constructed and shaped to support technology. This layer provides the cabling, electrical, and networking pathways that enable an individual to connect with the virtual and technology systems in the building and software connectivity among systems. **The rest of the Enterprise Technology Ecosystem sits on this foundation.**

Elements to consider in this layer include utilities, such as service providers and carriers, building circuit access, core drilling, network backbone, redundancy to physical utilities, remote access, design and layout for conference centers and rooms, building security considerations, building automation systems, disaster recovery, HVAC, Emergency Management Systems (EMS), Building Access Systems (BAS), Physical Access and Control Systems (PACS) and fire / life / safety concerns. GSA has experienced buildings where even the materials (e.g., concrete walls) selected for the infrastructure impacted subsequent layers. Additionally, one needs to consider the vertical and horizontal cabling and the cable management systems. GSA follows an internal standard outlined in the Telecommunications Distribution and Design Guide. Physical systems that distribute services, and power distribution systems enable the rest of the ETE.

At this stage, it is important to plan with agility and adaptability in mind, as tenants and their respective needs will change. A digital architect needs to be included early in the planning process, because making changes to this layer later on will be both complicated and costly.

THE ENTERPRISE TECHNOLOGY ECOSYSTEM

INFRASTRUCTURE & ENVIRONMENT
INTERFACE
EQUIPMENT & DEVICES
COLLABORATION
ANALYTICS

GSA WORKPLACE PATTERNS
MANAGING INTEGRATION
CASE STUDY: GSA HEADQUARTERS

INFRASTRUCTURE & ENVIRONMENT
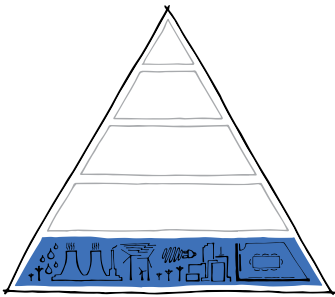
possible choices

Service providers

Upgrades

Relocation

possible implications

Continuity of operations

Ability to leverage leading-edge tech

Efficiency

Long-term cost

Enterprise Impact

suggested questions

What do you have? (Present)

- Current inventory and capability
- Security restrictions and limitations
- Flexibility of infrastructure

What do you need? (Future)

- On-Site vs. Off-Site
- Security Requirements
- Redundancy

Why do you need it? (Rationale)

- Enterprise-wide considerations
- Partnerships and Access
- Organization Mission

How do you get there? (Strategic Vision)

- 3 – 5 year outlook
- Growth Plan
- Owned vs. Leased
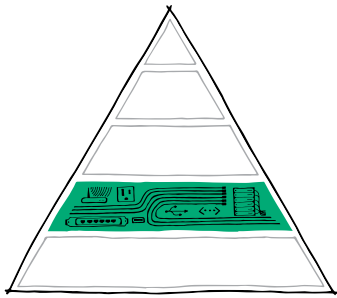
INTERFACE

The second layer of the ecosystem is the interface layer, which lies immediately on top of the infrastructure, and connects the infrastructure to the equipment beyond. The interface layer includes considerations for patch panels, circuits, floor boxes, servers, physical equipment for wireless (such as switches, routers, Wireless Access Points), cellular antennas, network outlets, and the network security systems protecting agency information.

Defining the interfacing services requires understanding the workplace strategy. For example, knowing the appropriate number of electrical outlets and their locations is dependent upon the function of the space. If asset tracking is important to the organization, then a robust wireless infrastructure is crucial to the success of gathering information. For a mobile workforce, ubiquitous connectivity will be essential and with the growing number of mobile devices, an enterprise robust wireless LAN will be essential in the workplace.
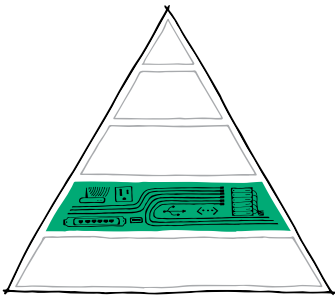
INTERFACE

possible choices

How much flexibility do you need?

How much branching will the interface accommodate?

Where will hardware be located?

possible implications

Flexibility

Cost

Obsolescence

suggested questions

What do you have? (Present)

- Interface control / ownership
- Flexibility and Adaptability
- Duplicate systems (ex: VOIP and Cell)
- Tethered Work vs. Agile Work

What do you need? (Future)

- Projections
- Interface Layer in Physical Space
- Guests / Visitors

Why do you need it? (Rationale)

- Program Requirements
- Proximity Requirements
- Verify Needs vs. Wants

How do you get there? (Strategic Vision)

- 3 – 5 year outlook
- Growth Plan

EQUIPMENT & DEVICES

The third layer contains the equipment or hardware that will need to be provided to enable employees to do their work. This category is expansive, but some things that should be considered include the type of computers and accessories necessary (laptops, desktops, monitors, docking stations, keyboard, mouse, headphones), tablets, desk phones, TVs A/V, video teleconferencing (VTC), multi-function print devices, plotters, smart phones (with voice, text, and data capabilities), projectors and screens, Smart Boards, whiteboards, sensors, Voice over IP (VoIP), conference phones, speakers, microphones (wireless and wired), technology to support HDMI / USB / VGA interfacing, and the backups for all of these in case of a technological malfunction.

Providing employees with the appropriate tools will enable them to efficiently carry out the organization's mission.

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EQUIPMENT & DEVICES
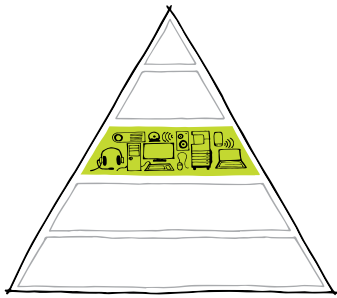
possible choices

BYOD vs. Supplied

Fixed vs. Mobile

Standardized vs. Tailored

Entitlement vs. Functional Need

possible implications

Equipment as a reflection of status

Cost of O&M

Document Sharing / Storage

Obsolescence of Legacy Equipment

suggested questions

What are the realities and practices of your workforce?

- Distribution
- Digital Adoption
- Usage / Utilization

How do you share information?

- Physical vs. virtual
- On-Demand

What policies govern decision making?

- Purchasing
- Assignment
- BYOD
- Risk & Safeguards

What is your ability to invest?

- Budget
- Fiscal Timing
- Refresh Schedule

COLLABORATION TOOLS
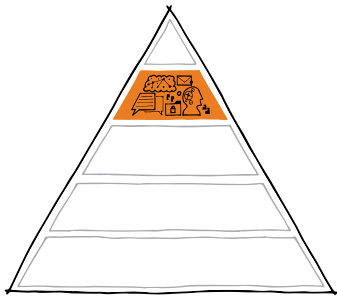
The fourth layer involves the collaborative tools that employees will use to carry out their roles, supported by the hardware mentioned above. The software and applications that organizations use must enable employees to be mobile, transparent, and collaborative. They can be company-specific, and include technology such as softphones, Single Number Reach (SNR), voicemail, email, Chat / Instant Messaging, VPN and Mobile VPN (for cell phones), fax-to-email solutions, video, collaborative tools including Google suite (Docs, Drive, Sites, Calendar, etc.), web conferencing tools (Adobe Connect, Cisco WebEx), conference bridge lines, virtual desktops, digital display systems for content distribution (TVs or flat panels with or without sound) and amenities such as guest internet access and emergency notification systems, Building Information Management (BIM) systems, workspace and room reservation systems, company-specific mobile apps, Internet of Things (IoT), organization websites or intranet, or any other **applications the organization will use to improve employee, client, and guest experience alike.**
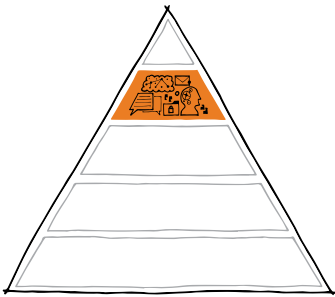
Note: While we acknowledge the existence and importance of systems for HR, purchasing, finance, etc., we are not addressing them here.

COLLABORATION TOOLS

possible choices

What technology do employees use when collaborating vs. doing focused work?

Mobile vs. Stationary

possible implications

Human Centered Design

Employees not tethered to space

Easy access to data

suggested questions

How do you currently collaborate?

- Meaning to your Organization
- Physical or Virtual Needs
- Space as Destination or Hub

What is your collaboration strategy?

- Vision
- Organizational Readiness
- Obstacles or Impediments

How accessible is your data?

- On-Site vs. Off-site
- Across Organizations

How secure is your data?

- Security Level
- Guests / Visitors
- Known Threats
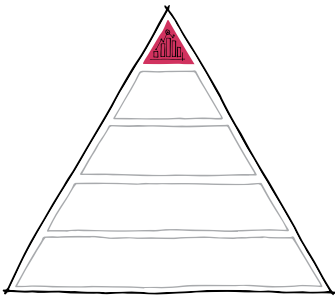
ANALYTICS

The final layer is analytics. In order to effectively distribute technology services to employees, management needs to collect the right kinds of data to make informed decisions. Technology is dynamic, so an organization's approach to delivering it should be as well. Analytics can be gathered on just about everything that happens in a building and used to improve employee and customer experiences alike. Some examples of this include building occupancy/utilization, remote workers, footprint reduction, user productivity, environmental data, etc.

Workplace goals such as wellness, work-life balance, sustainability and innovation ar dependent on the success of interpreting and utilizing existing data to deliver an optimum workplace.

The Enterprise Technology Ecosystem framework can be integrated into a variety of scenarios, whether an organization is constructing a new space, renovating an existing one, or simply looking to shift their mobile distribution strategy. Additionally, each of these layers is not mutually exclusive; for example, a company that wants to deploy IoT solutions should know this even at the infrastructure and environment or distribution stages, so they can plan accordingly and integrate technology into workplace design. However, generally speaking, the bottom, more foundational components of the ETE need to be considered to support what comes later.

ANALYTICS
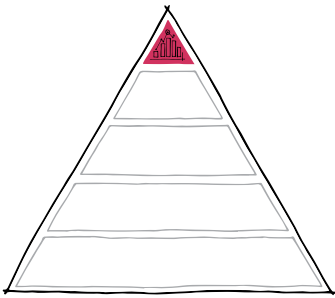
possible choices

Interoperability of Systems

Portability of Data

Cloud-Computing and Storage Demands

Diagnostic vs. Predictive

Local Use (Individual) vs. Global Use (Collective)

possible implications

Perception of Oversight

Validity of information

Security & Compliance

Procurement Strategies (Product vs. Service)

suggested questions

What's Important?

- Valuable Metrics
- Key Performance Indicators
- Opportunities for Future Value

What are you collecting?

- Data streams
- Analytical Competence

How are you using it? (Rationale)

- Decision Driver
- Retroactive Reporting
- Proactive Predicting
- Data Visualization

How does data impact behavior? (Strategic Vision)

- Real-time feedback
- Human Experience

GSA WORKPLACE PATTERNS

Tech Matters is primarily designed to support project managers and workplace strategists from GSA as they work to implement design solutions for their customers (employees) across the federal spectrum. In order to help these managers and strategists determine the right solution for the problems they face during the implementation process, Tech Matters has grouped employees into a series of work styles and categorized the modes of work to enable project managers to guide conversations using a common language. It is important to note that people move between different modes as their work shifts.

An additional benefit is to enable federal leaders to have productive conversations surrounding technology in the workplace.

GSA WORKPLACE PATTERNS

	desk bound over 75% time at individual workspace	**internally mobile** less than 75% time at individual workspace; less than 25% time outside the office workplace	**externally mobile** over 25% time outside the overall office workplace (e.g., telework)
interactive phone conversations in-person conversations at the individual workspace	Supervisors, program managers, receptionists, call center staff, and help desk employees often have the **desk-bound, interactive** work pattern.	Project managers, client managers, designers, and some engineers often have the **internally-mobile, interactive** work pattern.	Executive managers, sales and marketing staff, and management consultants often have the **externally-mobile, interactive** work pattern.
concentrative processing information that doesn't required focused attention (e.g., emails) focus work that requires concentration	Accountants, budget analysts, paralegals, programmers, data entry staff and some researchers often have the **desk-bound, concentrative** work pattern.	CFOs, comptrollers, some engineers, and many scientists often have the **internally-mobile, concentrative** work pattern.	Auditors, field inspectors, and some attorneys often have the **externally-mobile, concentrative** work pattern.

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GSA WORKPLACE PATTERNS

desk bound
over 75% time at individual workspace

internally mobile
less than 75% time at individual workspace; less than 25% time outside the office workplace

externally mobile
over 25% time outside the overall office workplace (e.g., telework)

interactive
phone conversations

in-person conversations at the individual workspace

concentrative
processing information that doesn't required focused attention (e.g., emails)

focus work that requires concentration

desk bound — interactive:
File sharing
Intranet
Multiple screens

internally mobile — interactive:
Wi-fi
Instant message
Video Conference
Conference room with integrated technology

externally mobile — interactive:
Wi-fi
Instant message
Video Conference
Project share software

desk bound — concentrative:
Multiple Screens
Desk Phone
Shared Drive

internally mobile — concentrative:
Laptop Computer
Cell Phone
Wi-fi

externally mobile — concentrative:
Laptop Computer
Cell Phone
Mobile Wi-fi

MANAGING INTEGRATION

Workplace Digital Architect (Prototype)

Job Title: Workplace Digital Architect

Reports to: Chief Workplace Officer

Position Summary

The objective of the Workplace Digital Architect (WDA) is to ensure that technology is integrated into the design and the delivery of workplace. The WDA is responsible to developing a workplace technology vision and strategy that integrates workplace.

The WDA reports directly to the Chief Workplace Officer and is accountable to meet the technology needs and priorities of the Workplace Strategy team. The WDA as such contributes to and supports activities that develop and maintain global workplace programs and community awareness.

Responsibilities

- Develop integrated and approved workplace technology standards, guidelines, best practices, and lessons learned.

- Seek out, establish relationships with, and coordinate access to global subject matter experts in current, future, and partner technologies.

- Define a process in which to consistently coordinate and budget technology deployment across all locations.

- Develop concepts and opportunities to more clearly showcase technology in the workplace.

- Manage infrastructure costs while boosting innovation across the portfolio.

- Develop standardized line of business applications while assessing future opportunities for productization.

- Partner with IT peers on ownership and accountability to customers for workplace technology standards and specifications.

CASE STUDY: GSA HEADQUARTERS

1800 F

Challenge

The General Services Administration (GSA) is the largest public real estate organization in the United States, providing over 350 million square feet of office space to one million federal employees. In 2010, an executive order mandated that government agencies reduce unused space and cut down on workplace costs. Thusly motivated, GSA moved to redesign its headquarters at 1800 F Street in Washington, D.C. The organization used the redesign as an opportunity to integrate technology into the workplace design process. As a result, the organization adopted a host of new practices and transformed the way the GSA performs its services.

Strategies

Focusing on the 1800F project as a "workplace" success story overlooks the underpinning enterprise-wide IT transformation implemented concurrently across the agency. The IT Transformation fueled opportunities for GSA's success in many ways, including: optimizing space management, streamlining business processes, enabling social networking and community building, fostering collaboration, and supporting file digitization.
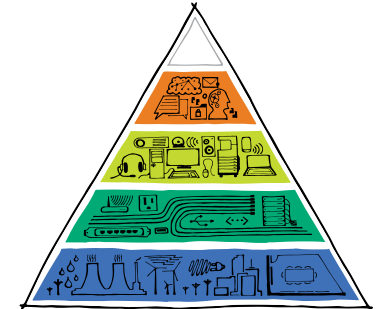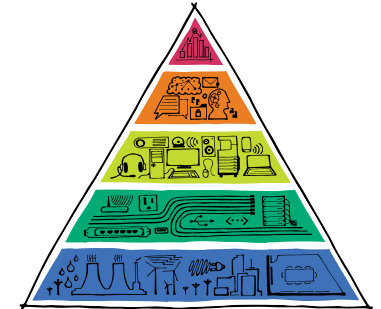
THE ENTERPRISE TECHNOLOGY ECOSYSTEM

INFRASTRUCTURE & ENVIRONMENT
INTERFACE
EQUIPMENT & DEVICES
COLLABORATION
ANALYTICS

GSA WORKPLACE PATTERNS
MANAGING INTEGRATION
CASE STUDY: GSA HEADQUARTERS

CASE STUDY: GSA HEADQUARTERS

Without complementary integration of the IT transformation elements, an agency seeking to mirror the success at 1800F might miss the mark. The project required interaction, planning, investment, and implementation across several layers of the Enterprise Technology Ecosystem. **This case study highlights strategies deployed by GSA and key IT shifts at multiple levels of the ETE.**

Support remote work by providing access to applications and systems

Enhance collaboration through the adoption of new capabilities

Place the right tools in the right hands and eliminate obstacles

Standardize IT / AV equipment where possible

Use space management and software tools to **create a dynamic workplace**

CASE STUDY: GSA HEADQUARTERS

Support remote work by providing access to applications and systems

from

Server-based, legacy systems secured behind firewalls with distinct log-ins and passwords

Restrictive interpretation of IT security rules and policies

to

Cloud-based applications with remote access coupled with thepotential for single sign-on

IT policy and rules that enable adoption of latest, proven technology capabilities

impact

- Increased confidence in and reliability during remote work

- Provided resiliency in COOP situations

- IT policy and culture enables modernization, flexibility, and innovation

CASE STUDY: GSA HEADQUARTERS

Enhance collaboration through the adoption of new capabilities

from

Asynchronous information and file exchange when colleagues not face-to-face

Paper intensive environment and large- scale retention of working files, not records

to

Real-time collaboration via cloud-based software (e.g., Google Suite)

Digitization of documents and processes along with enhanced records management

impact

- Created an "in person" experience in a virtual setting

- Portability of files and working documents supported mobile work
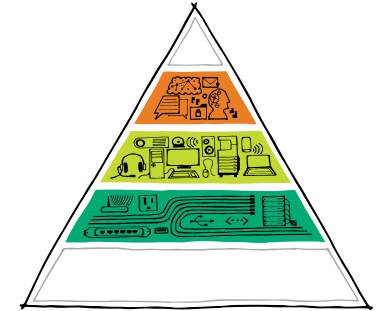
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Place the right tools in the right hands and eliminate obstacles
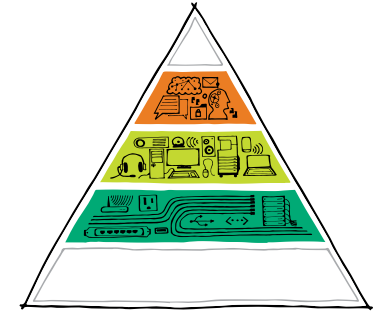
from

Cell phones and smart devices in the hands of a few; limited number of approved mobile apps; limited cell and data plans

Limited wi-fi within buildings; considered an option, not a requirement

to

Large-scale deployment of smart devices and laptops; well-designed procurements leveraging agency-wide scale

Ubiquitous, reliable, and secure wi-fi for employees and guests

impact

- Leveraged vast computing capabilities now available on handheld and portable devices for "work on the go"

- Untethered staff from their desksfor more collaboration

CASE STUDY: GSA HEADQUARTERS

Standardize IT / AV equipment where possible

from

Various equipment types
and individual "ownership"
of equipment

to

Highly flexible, but
limited number of equipment
profiles for workstations
and collaborative spaces

impact

- Eased the learning curve for
  individuals as they worked from
  a variety of locations

CASE STUDY: GSA HEADQUARTERS

Use space management and software tools to **create a dynamic workplace**
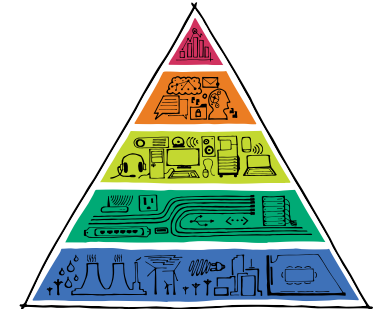
from

Manual processes for space management

Hard-wired landlines

to

Web-based, enterprise tool for self-service management of workspaces

VOIP, web-based phone interface

impact

- Dynamic assignment and use of various spaces

- Eliminated need for labor intensive desk "moves"

CASE STUDY: GSA HEADQUARTERS

transformation timeline

Smartphones

VPN

VOIP

1   2   3 design 4   build 5   6 operate 7

Laptops

Webex

Cloud for
Mail / Files

Thin Client
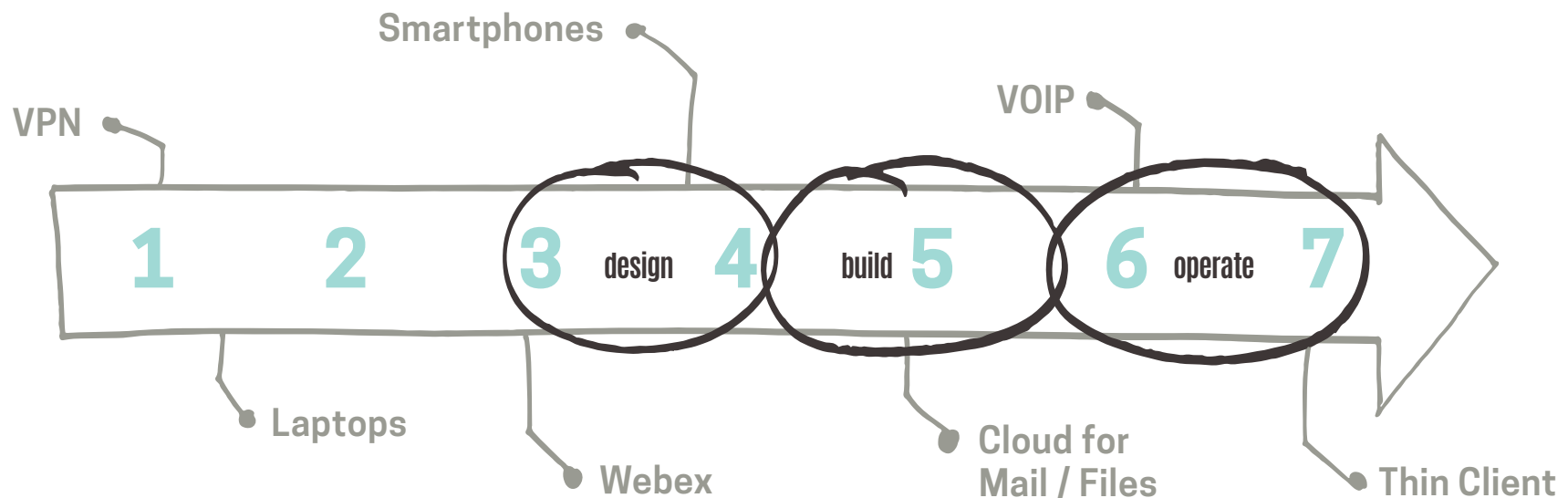
Not only was technology a critical component in the GSA Workplace Transformation, technology conversion preceded the architectural design cycle.

CASE STUDY: GSA HEADQUARTERS

Outcome

GSA's headquarters building at 1800 F Street (1800F) underwent a significant workplace modernization from 2009 to 2013. The project allowed GSA to relinquish leases across Northern Virginia and brought over 4,000 DC-based headquarters personnel together under one roof by creating a more efficient office design, implementing mobility practices, and deploying enabling technologies.

The 1800F project brought to life – at a single physical location– the complete spectrum of elements of underlying agency-wide transformation.

Over time, GSA implemented several more workplace transformation projects in regional office buildings and field offices across the Nation, capitalizing on substantial information technology (IT) and human resource (HR) investments. The project integrated space and technology under the umbrella of human experience to successfully transform the way the agency operates.

GSA's IT Transformation was multi-faceted and comprehensive. It involved significant leadership vision, sponsorship, and change management to increase workforce adoption and achieve operational success. The project team partnered with facility planners, construction teams, and change champions as part of an integrated team and persevered to overcome hurdles along the way.
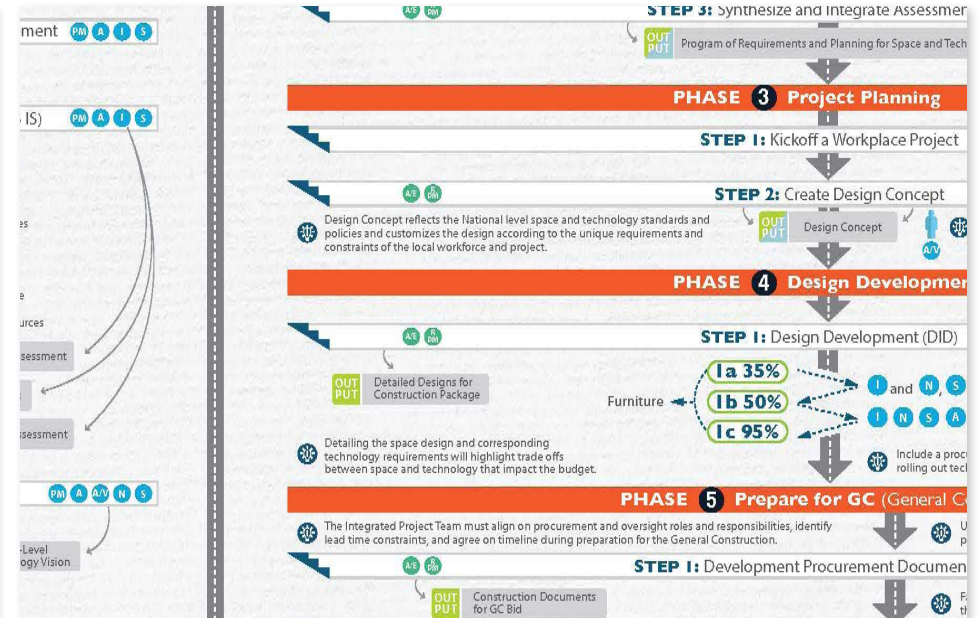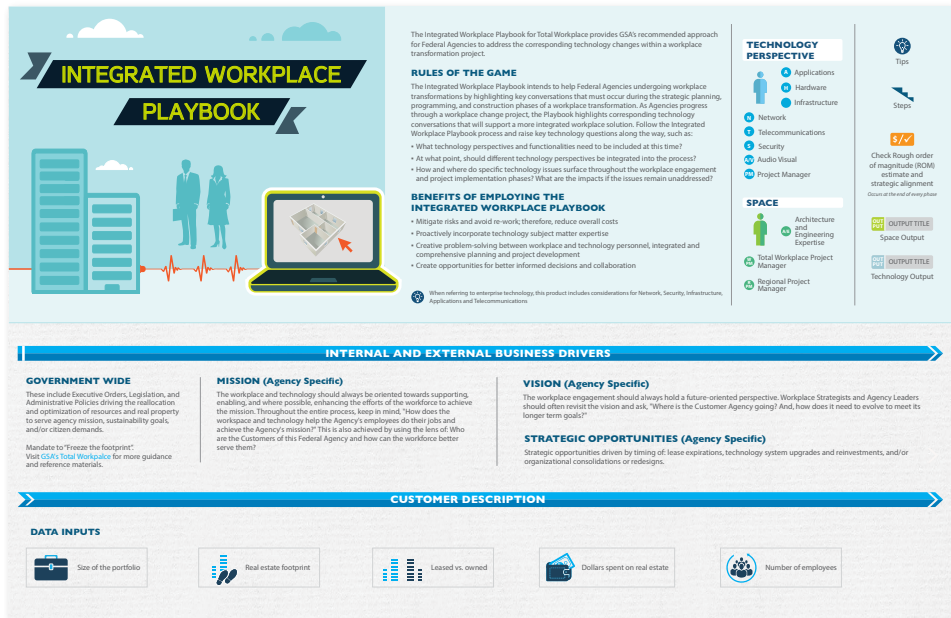
appendix

INTEGRATED WORKPLACE PLAYBOOK

Tech Matters builds on the **Integrated Workplace Playbook (IWP),** which provides GSA's recommended approach for Federal Agencies to address the corresponding technology changes within a workplace transformation project. Whereas IWP focused on project execution and risk mitigation, Tech Matters expands the case for technology and workplace integration. The two documents can and should complement one another.

CONTRIBUTORS

Mike Bahr, Martin Petersen Company, Inc.

Arie Barendrecht, WiredScore

Jerry Bell, JBJBusinessgroup Inc.

Ronnie Bent, GSA

Nina Charnotskaia, CBRE

Samantha Cioffi, GSA

Martha Clarkson, Microsoft

Casey Coleman, Unisys

David Craig, Gensler

Anne Marie Davis, GSA

Ryan Doerfler, GSA

Jeremy Doyle, Humanyze

Stacey Fong, GSA

Robert Fox, Fox Architects

Gordon Gill, ASGG

Sonny Hashmi, Box

Andy Holmes, OPX Global

Michael Housman, hiQ Labs

Daniel Johnson, Accenture

Kevin Kelly, GSA

Curtis Knapp, HOK

Jonathan Mcintyre, GSA

Rex Miller, mindSHIFT Consulting

Eileen Mix, Studio3design

Jake Moon, InnoVet Labs

Kate North, PlaceValue

Tom Pritscher, TEPCON

Ted Ritter, DrawAlert

Kay Sargent, HOK

John Scifers, SCIGON Solutions

Erik Simmons, GSA

Daniel Tehan, Arup

John Tolva, CityFi

Randy Tritz, Shen Milsom & Wilke

David Tropp, CBRE

James Truhan, GSA

Pat Turnbull, Kayhan

Shery Wittstock, GSA

David Wright, Integrated Communications Consulting, LLC

David Wilts, Arup

CIOs / CTOs from the following agencies:

Avi Bender
U.S. Census Bureau

David Bray
Federal Communications Commission

Steven I. Cooper
U.S. Department of Commerce

Rafael Diaz
U.S. Department of Housing and Urban Development

David Shive
General Services Administration

IT representatives from the **Internal Revenue Service, the Office of Management and Budget and the U.S. Social Security Administration** also provided input.

PROJECT TEAM

Ann P. Kalayil, Regional Administrator, Great Lakes Region & Digital Strategist for Workplace

Charles Hardy, Chief Workplace Officer Public Buildings Service

David Shive
Chief Information Officer

Heather Spray, Great Lakes Region

T. Patrick Donnelly, Principal

Drew Suszko, Architect, Lead Strategist

Margaret Lange, Graphic Designer

Grania Frueh, Graphic Designer

Suzanne Hopkins, Graphic Designer

Tara Carcillo, CEO

Ann Lading-Ferguson, Project Manager

Christopher Jackson, Analyst