User-Centric Service Design Process

**Strategy**
- Should HUIT provide this service?

**Design**
- What will it look like and who will use it?

**Transition**
- How will it be introduced to end users (and provider/support teams?)

**Operations**
- How will it be delivered and supported?
Service Strategy:
Should HUIT provide this service?

- What is the problem statement?
- Who is experiencing the problem?

- Definition of a service – p. 6 & 7

- Proposed service definition template – p. 8

- Overview of process – p. 4
- Example approach – p. 5
Business Analysis: Process Overview

• Validate the problem statement
• Identify stakeholders and potential users
• Gather information on current state, process(es), and context (e.g., organizational, financial)
• Interview stakeholders and users to understand priorities, criteria, challenges, and desired outcomes
• Determine scope of problem to address
• Evaluate possible solutions
• Conduct financial analysis (e.g., who pays/who’s willing to pay)
• Assess whether HUIT should and could provide a solution
Business Analysis: Example Future State Exercise

<table>
<thead>
<tr>
<th><strong>Strategy</strong></th>
<th><strong>Future State</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>How will we get to the future state?</td>
<td>Where would we like to be?</td>
</tr>
<tr>
<td>Does it involve the need for a new service?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Current State</strong></th>
<th><strong>Gaps</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Where are we now?</td>
<td>What’s currently missing (e.g., process, people, technology, expertise)?</td>
</tr>
</tbody>
</table>
Does It Qualify as a New Service?

A service is a means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs or risks. ITIL v3, Service Design

A service is a coherent, ready-to-use deliverable that is of value to the customer. Services allow customers to do business without worrying about underlying technology or IT infrastructure. If an offering meets these broad criteria from the customer’s perspective, it is probably a service and should be at least minimally defined.

An IT Service exhibits the following characteristics:

- Fulfills one or more needs of the customer
- Supports the customer’s business objectives
- Is perceived by the customer as a coherent whole or consumable product

When trying to determine whether an offering is a service, consider the following:

- If someone can request and purchase it, it is probably a service.
- If it can be viewed as an add-on or an option of a service, it should be considered a part of that service and not a service of its own
- Applications, themselves, are not services. They enable services that may be provided by someone else.
Does It Qualify as a New Service?

Other options if it's not a service:

- It could be a feature or a part of a service.
- It may be supporting infrastructure, an IT system, or a Configuration Item.

Other questions to consider:

- Is it a unique service?
  - Are features and functions largely the same as for other services? If so, it is probably not a unique service.
- Is the service currently being provided or is it a service that you want to offer in the future?
  - If it is currently being provided to customers, it should be defined.
  - If it is something new, would it be a feature or part of an existing service, or would it be a completely new offering?
- If it would be a feature or part of an existing service, work with the Service Owner to incorporate it into the existing service.
- If it is something completely new, it must have executive support prior to development. A proposed service definition may be used to inform the approval process.
Proposed Service Definition Template

• How does the proposed service fit in with and/or enhance the overall service strategy?
• How would it improve the experience for end users?

Purpose / Objective:

Users:

Value / Benefits:

Service Owner:

Provider Group:

Dependencies/Relationships with Other Services:
Service Design
What will it look like and who will use it?

- Possible approaches – p. 10

- Determine engagement approach
- Review & refine service attributes [checklist - Part 1]
- Identify & solicit input from stakeholders
- Identify service design partners
- Develop user personas
- Document "Customer Journey" (requests & support), preferably with customers
- Document service delivery, note effort & skills needed
- Evaluate environment in which service will be delivered (e.g., service/technical interdependencies, org, end user context)
- Establish financial models
- Complete definition of all service components [checklist - Parts 1 & 2]
- Develop service roll-out plan
- Validate proposed service with stakeholders
- Create service handbook [template]
- Review deployment strategy and staffing needs with Support Services
- Create artifacts for end users, service providers, and support team

p. 11
p. 11 & 12
p. 13
p. 14 & 15
p. 16
Possible Engagement Approaches

Key Questions

- How will stakeholders be involved in the service design process?
- How will you keep executive sponsors/senior leadership informed? When do you need approvals?

Example Engagement Approaches

- **Working Group**: Develop a service specific workgroup to engage on design and roll out
- **Existing Forums**: Leverage existing forums (e.g., Communities of Practice, Councils, Forums, Key Departments) to socialize, gather input and ensure buy-in
- **Targeted Engagement**: Target individuals and groups from critical constituencies for interviews and feedback sessions
- **Workshops**: Conduct one-time workshops at key junctures in service design
Service Design Checklist: Part 1

Service Attributes

- Description
- Key Features and Benefits
- Offerings
- New or Replacement?
- Service Stakeholders
- Available to
- Requirements and Limitations
- Policies regarding Use of Service
- Compliance and/or Regulatory Requirements
- Potential Risks

Service Transition

- Timeline for Service Development & Launch
Service Design Checklist: Part 2

Service Operations
- Service Team
- Service Support
- Service Requests
- Knowledge
- Major Incidents
- Technology used for Service Delivery
- Service Dependencies
  - “One-Down” this Service depends on
  - “One-Up” that depend on this Service

Service Level Management
- Service Level Targets
- Service Level Agreements
- Operating Level Agreements
- Underpinning Contracts
- Metrics

Financial model
- Internal
- External
User Persona: Sample Template

“What’s in it for me?”

• Name
• Role within organization
• Background (e.g., skills, expertise, attitudes, expectations)
• Business goals and priorities (individual and organizational)
• Technology/service familiarity
• Use of proposed IT service
  – Context of use
  – Extent of use
  – Frequency and timing
• Value and benefits of proposed IT service for this persona
Service Roll-out Planning: Approach

• How will the service be introduced to the community?
  • **Pilot:** testing with subset of users
    • Time-limited
    • Clear questions that will be answered during pilot
    • Mechanisms to collect feedback from both providers and users
    • Decision for future roll out based on pilot learning

• “**Big Bang**”: everyone goes live at once

• **Phases:** Gradually roll out service
  • Clarify time and phases of roll-outs
  • Determine approach to phases (level/tier or scope, population, school, etc)

• **Push vs. Pull**
  • Push – HUIT provides to users at a time of its choosing
  • Pull – Users takes as they are ready/interested
Service Roll-out Planning: Change Management

• How much change will users experience and/or be able to manage?
  – Leverage PMO Change Management resources and guidelines.
  – Review the PMO schedule to identify other projects/services going live at the same time.
  – Consider the peaks and valleys of academic/administrative cycle.

• Are there technical risks from too much change at once?

• What is the high-level timeline?

• What is the communication plan and narrative?
Service Transition: Preparing Support Services

• Review deployment strategy with Support Services.
• Identify any required changes for end users to use service (e.g., updated software)
• Using the Support Services Resource Estimation table (Appendix), estimate the following resource requirements
  – Field Support needed during rollout
  – Field Support needed after the rollout (ongoing)
  – Service Desk resources needed during the rollout
  – Service Desk resources needed after the rollout (ongoing)
• Acquire funding for necessary resources during and after rollout.
• Review communications and training plans with Support Services
  – How will users be told what to expect and what they need to know?
    • Include Support Services on communications to users.
    • Review deployment and communications plans with other Harvard Service Desks and support teams.
  – How will users be trained and by whom? During and after the roll-out?
• Tier 1 and 2 support: Identify support roles and responsibilities for the Service Desk and Field Support teams. Determine what they will need:
  – knowledge articles, including triage and troubleshooting guide
  – tool access and training
  – training courses as needed
  – user training—how to use the service itself
Service Transition
How will it be introduced to end users (and provider/support teams)?

- Templates – p. 18 - 21
- Service & offering definitions - Appendix
Service Delivery Subgroup Approval: Scope

• Any new services or significant changes must be approved by the Service Delivery subgroup, including:
  – A comprehensive overhaul of services and related offerings, based on organizational changes
  – Removing a key service/offering for important stakeholders or one with broad impact
  – Redistributing service ownership and delivery across groups

• The following service catalog changes do NOT need Service Delivery subgroup approval:
  – Retirements with clear replacements within the existing catalog (e.g., Student Financial Services to my.harvard and ATS, FAS and ICE mail to Office 365)
  – Minor changes to offerings (e.g., my.harvard adding two more by splitting out existing offerings based on business need, HPAC websites as temporary stop-gap offering)

• When in doubt, ask the ITSM team.
Rationale for Proposed Service (or Changes)

Questions to answer:

• How do the proposed changes fit in with and/or enhance the service strategy?

• How do they improve the experience for end users?

• If changes to existing services, how do they map/align/shift vis a vis the proposed services? (See next slide for example.)
# Mapping Current to New Services: Example of ITS Service Offering Changes

2 Services and 19 offerings

<table>
<thead>
<tr>
<th>Current State</th>
<th>Proposed Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Offering</strong></td>
<td><strong>Service Offering</strong></td>
</tr>
<tr>
<td>VPN</td>
<td>VPN</td>
</tr>
<tr>
<td>Wired Connectivity</td>
<td>Wired Networking</td>
</tr>
<tr>
<td>RESNET</td>
<td></td>
</tr>
<tr>
<td>Wireless Connectivity</td>
<td>Wireless Networking</td>
</tr>
<tr>
<td>DHCP</td>
<td>DHCP</td>
</tr>
<tr>
<td>DNS</td>
<td>DNS</td>
</tr>
<tr>
<td>Firewall / ACL</td>
<td>Infrastructure Security</td>
</tr>
<tr>
<td>Load Balancing</td>
<td>Load Balancing</td>
</tr>
<tr>
<td>Self-Service Tools</td>
<td>Self-Service Tools</td>
</tr>
<tr>
<td>Wire and Cable</td>
<td>Wire and Cable</td>
</tr>
<tr>
<td>Datacenter Support</td>
<td>Datacenter Facilities</td>
</tr>
<tr>
<td>Datacenter Facilities</td>
<td></td>
</tr>
<tr>
<td>Operations &amp; Production Services</td>
<td>Operations &amp; Production Services</td>
</tr>
<tr>
<td>Data Protection Services</td>
<td>Data Protection Services</td>
</tr>
<tr>
<td>Database and Application Management</td>
<td>Database and Application Management</td>
</tr>
<tr>
<td>Server Management - Linux / Unix</td>
<td>Server Management - Linux / Unix</td>
</tr>
<tr>
<td>Server Management - Windows</td>
<td>Server Management - Windows</td>
</tr>
<tr>
<td>Filesharing</td>
<td>Filesharing</td>
</tr>
<tr>
<td>Storage and Archive Services</td>
<td>Storage and Archive Services</td>
</tr>
</tbody>
</table>

**Notes:**
- **Strategy:**
- **Design:**
- **Transition:**
- **Operations:**
New Service Template

Purpose / Objective:

Users:

Value / Benefits:

Offerings:

Service and Offering Owners:

Provider Group:

Support Model (Tier 1 – Tier 3): HUIT Service Desk > X > Y

Service and Technology Dependencies:
ServiceNow Set-up

- Create service > offering CIs
- Set up assignment groups and identify queue managers

For each offering:
- Complete CI record with basic service and operational information (see KB0010638)
- Determine categories (e.g., beyond troubleshooting and request)
- Designate default assignment groups
- Add and associate all applications in CMDB

Knowledge
- Write knowledge articles for end users and Tier 1 support

Requests
- Create request forms for self-service portal, if applicable

Change/Release
- Identify change approvers
- Develop standard changes and add to library
- Determine how releases are recorded within ServiceNow
Finalize language for service catalog description for end users (e.g., students, staff, and faculty):

• Description

• Key Features and Benefits

• Available to

• How to Access the Service

• Requirements and Limitations
  – Eligibility
  – Policies
  – Technology requirements

• Related Resources
Service Operations
How will it be delivered and supported?

- Provide access to service providers and support staff
- Train support team
- Notify end users and support staff of go-live
- Provide Early Life Support
THE FIVE PRINCIPLES OF SERVICE DESIGN THINKING

1. USER CENTERED
   Services should be experienced through the customer’s eyes

2. CO-CREATIVE
   All stakeholders should be included in the service design process

3. SEQUENCING
   The service should be visualized as a sequence of interrelated actions

4. EVIDENCING
   Intangible services should be visualised in terms of physical artifacts

5. HOLISTIC
   The entire environment of a service should be considered
## Support Services Resource Estimation

Estimate the number of Support Services resources required during the roll-out and for ongoing support.

<table>
<thead>
<tr>
<th>Level of Support Services Effort</th>
<th>Example</th>
<th>Roll-out Duration</th>
<th>New or Enhance?</th>
<th>Population and # Users Impacted</th>
<th>Degree of change for end users</th>
<th>Effort Type</th>
<th>Temp support for roll-out (FTE)</th>
<th>Ongoing support for operations (FTE)</th>
<th>Field Effort Type</th>
<th>Temp support for roll-out (FTE)</th>
<th>Ongoing support for operations (FTE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>LastPass</td>
<td></td>
<td>New</td>
<td></td>
<td>Low</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>triage, FAQ</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Medium</td>
<td>Multifactor authentication</td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Large</td>
<td>O365</td>
<td>13 mths</td>
<td>New</td>
<td>FAS/CA/GSE/GSD, HMS, Chan 23,000</td>
<td>Med</td>
<td>1</td>
<td>1</td>
<td>support model creation, intake, triage, trouble-shooting, training</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>XLarge</td>
<td>Harvard Key</td>
<td></td>
<td>New</td>
<td></td>
<td>High</td>
<td>1</td>
<td>1</td>
<td>trouble-shooting, training</td>
<td>2</td>
<td>trouble-shooting, training</td>
<td>2</td>
</tr>
</tbody>
</table>
Service Taxonomy Structure

Category

Superset of services | End User Computing

Service

IT Service | Email

Offering

Instances of service | Gmail, Office 365
Service Offering Components

Service Offering

- Service Requests
- Systems/Applications
- Knowledge Articles

Requests for the offerings itself or elements of it
- Systems, applications, or other Configuration Items that make up the offering
- Knowledge articles, SOPs, run books, etc. describing its operation

<table>
<thead>
<tr>
<th>Request</th>
<th>Systems/Applications</th>
<th>Knowledge Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request a new email account</td>
<td>Proofpoint spam filtering</td>
<td>How do I forward my email?</td>
</tr>
</tbody>
</table>