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IT Strategic Planning Discover Playbook, Part I

Tools, Templates, and Guidelines to Conduct Your IT Environmental Scan and SWOT Analysis

| PREPARE | DISCOVER | DISTILL | FINALIZE | IMPLEMENT |

How to Use This Playbook

EAB Center of Excellence: IT Strategic Planning

Plug-and-Play Resources to Guide Your IT Strategic Planning Process

This Center of Excellence includes coverage of the IT strategic planning process with basic guidelines, workshops, templates, and diagnostic tools to educate peers and stakeholders, as well as advanced practices effective at higher education institutions. It also offers guidance and support to replicate those practices on your campus.

IT Strategic Planning Discover Playbook, Part I

This playbook has resources to help with IT environmental scanning and SWOT analysis, part of the **Discover** phase of IT strategic planning. The purpose of environmental scanning is to assess what is happening in the IT organization, the institution, and the broader market that has strategic implications for the institution. The scan identifies strengths, weaknesses, opportunities and threats, summarized in the SWOT analysis, that IT needs to address in its strategic plan.

For complementary Discover activities that rely on outputs from this playbook, see the related ***IT Strategic Planning Discover Playbook, Part II***. Process steps and tools are numbered consecutively in the two Discover playbooks.

| PREPARE | DISCOVER | DISTILL | FINALIZE | IMPLEMENT |

Discover Phase: IT strategic planners assess what is happening in the IT organization, the institution, and the broader market to identify strengths, weaknesses, opportunities, and threats. They also assess the IT implications of institutional strategic goals. Results of this phase are reviewed in the Distill phase to identify IT strategic goals and objectives.
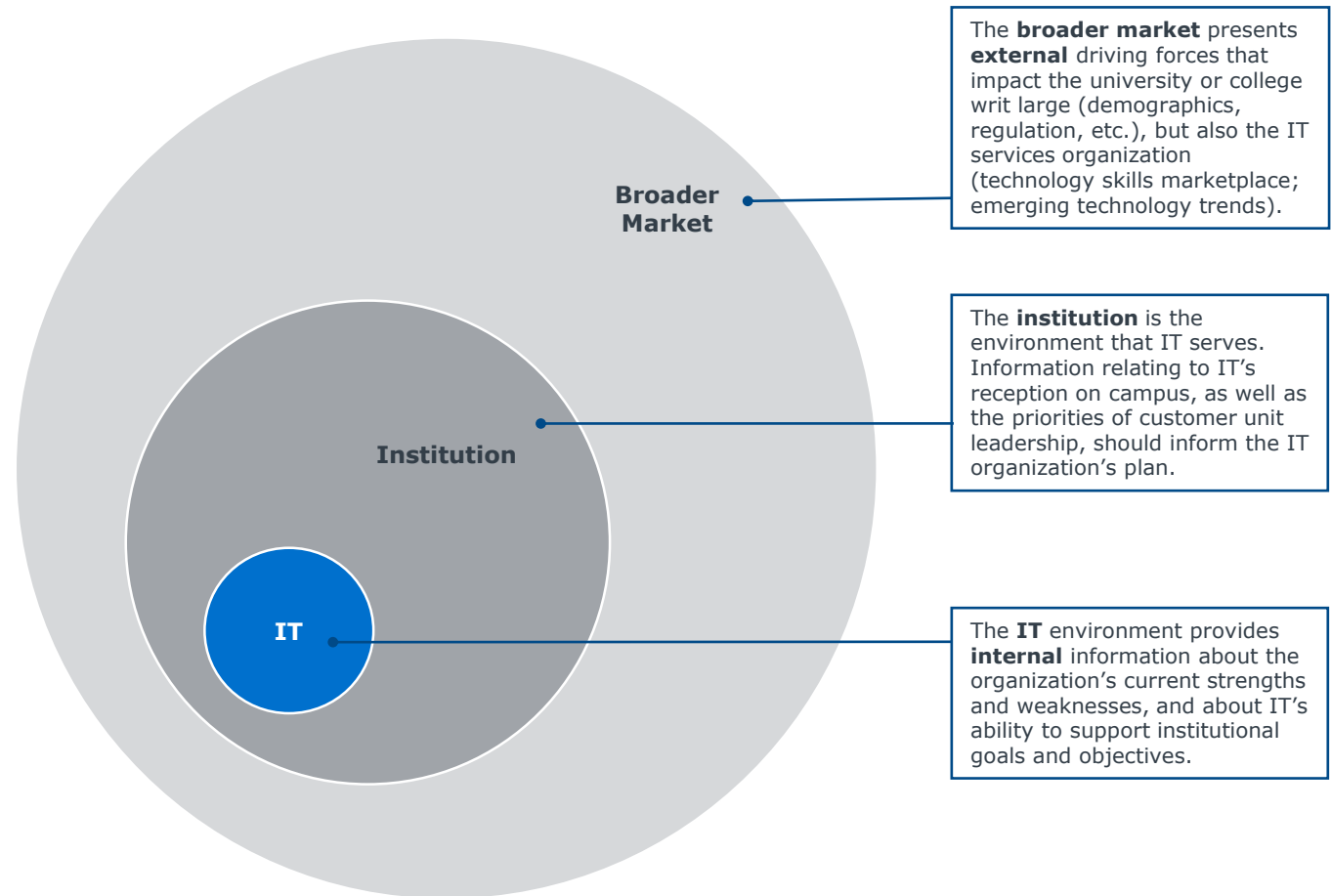
Included in This Playbook

Environmental Scanning: Multiple Perspectives for Higher Education IT

Environmental scanning establishes the context for IT strategic planning. Involved parties gather intelligence relating to the IT organization and the wider world within which it operates. This activity identifies strengths, weaknesses, opportunities and threats (SWOT) which become inputs into the next phase of the IT strategic planning process: identifying IT strategic goals.

Higher education IT strategic planners should add an institutional dimension to traditional internal and external scans. The institution is both a customer to IT ("external") and the enterprise to which IT belongs ("internal"). Ultimately IT strategic planning is an exercise in determining how to serve the institution's goals.

The environmental scanning process culminates in the SWOT analysis, a summary representation of the IT organization's strengths and weaknesses, and the (institutional) opportunities and threats its efforts address.

Higher Education Realities Add Complexity to Traditional External and Internal Scans

Broader Market

Institution

IT

The **broader market** presents **external** driving forces that impact the university or college writ large (demographics, regulation, etc.), but also the IT services organization (technology skills marketplace; emerging technology trends).

The **institution** is the environment that IT serves. Information relating to IT's reception on campus, as well as the priorities of customer unit leadership, should inform the IT organization's plan.

The **IT** environment provides **internal** information about the organization's current strengths and weaknesses, and about IT's ability to support institutional goals and objectives.

Mapping IT's Strategic Landscape

Gathering Information to Provide Context for Planning Involves Various Topics, Stakeholders

Robust environmental scanning should collect the appropriate information to aid IT in identifying the various strengths, weaknesses, opportunities and threats that will drive the IT organization's strategic plan and, ultimately, its investments and actions. To conduct thorough scanning, CIOs and their teams must gather information from across and beyond their institution, accounting for past performance, current capacity, and emerging trends in technology and markets.

Context provided by the environmental scan also helps IT strategic planners to better understand how to fulfill institutional strategic goals. For more information on aligning IT activities with institutional goals, see the *IT Strategic Planning Discover Playbook, Part II*.

External Scan	Institutional Scan	Internal Scan
Identifying systemic and existential IT-related opportunities and threats in the broader market that may affect the institution.	*Identifying campus-level context that impact IT's ability to identify and meet strategic goals and shape investments. May reveal strengths, weaknesses, opportunities, or threats.*	*Identifying strengths and weaknesses within the central IT organization.*

External Scan

Technology Trends
- Emerging technologies (e.g., Blockchain, AR/VR, iPaaS)
- Emerging vendors and vendor plans
- IT risk analysis

Compliance and Regulation
- National and international changes to data regulation and compliance (e.g., student, medical, research data)

IT Skills Marketplace
- Supply/demand for IT skills
- Emerging and obsolescing skills as related to emerging technologies

Institutional Scan

Customer Needs & Perceptions
- Leadership mandates relating to strategic projects and initiatives
- Institutional technology culture
- Stakeholder satisfaction

Distributed IT
- Duplication of effort
- Division of responsibilities between central and distributed IT
- Skills and competencies of distributed technology staff

Internal Scan

IT Services Organizational Health
- Skills and competencies
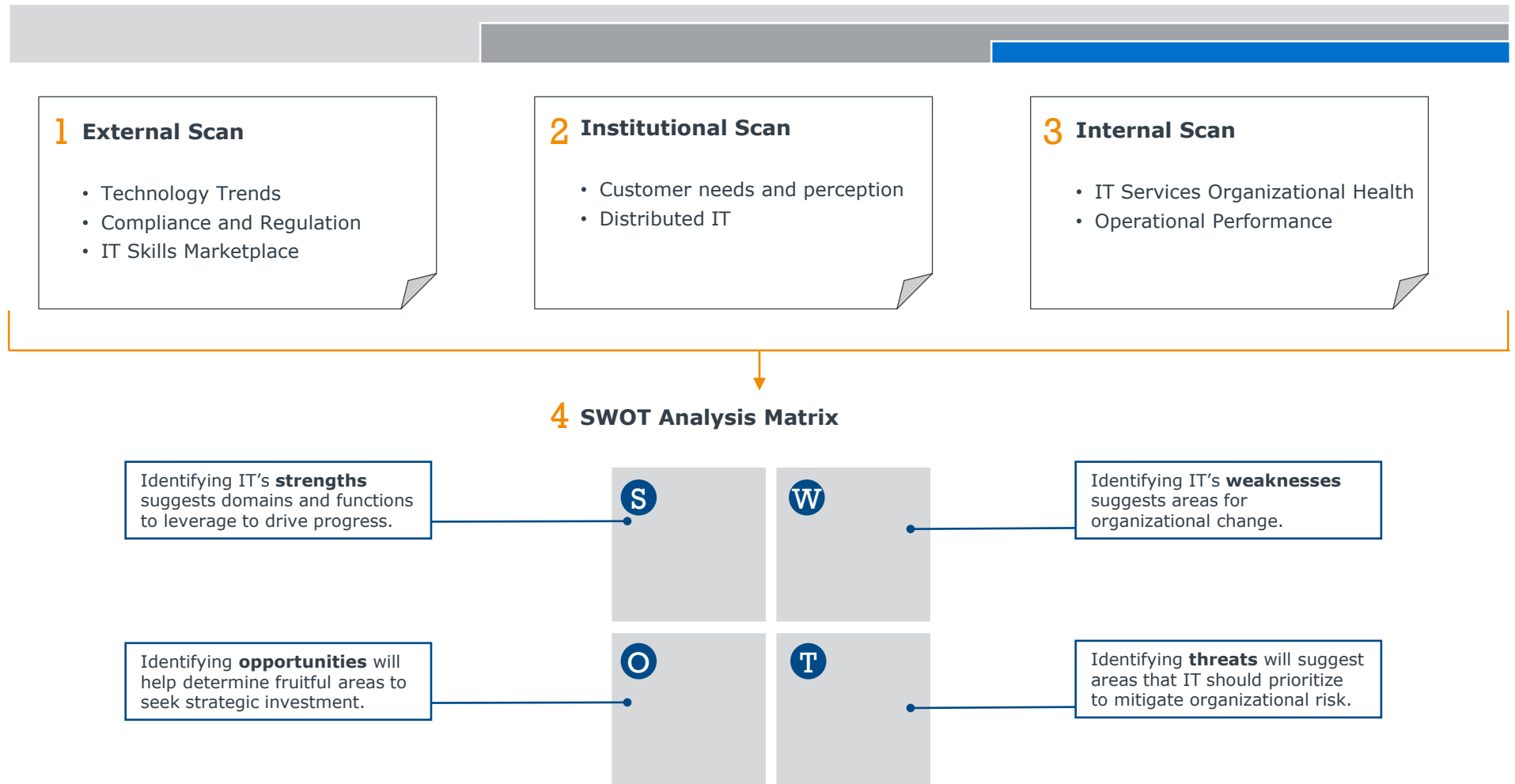- Staff turnover
- Culture/staff satisfaction

Operational Performance
- Performance metrics and operational reviews by IT function
- Benchmarking metrics
- Functional area strengths and weaknesses

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Triaging Information to Drive Tomorrow's IT Strategies

SWOT Analysis Codifies Current State, Provides Structure for IT's Strategic Investment

Creating usable material for the later phases of IT strategic planning demands preliminary digestion of the raw environmental analyses. SWOT—Strengths, Weaknesses, Opportunities, Threats—analysis helps stakeholders and IT teams codify their findings. It turns lengthy scanning outputs into concrete statements regarding the current and aspirational state of the IT organization, and identifies areas of strategic opportunity and organizational risk.

1 External Scan

- Technology Trends
- Compliance and Regulation
- IT Skills Marketplace

2 Institutional Scan

- Customer needs and perception
- Distributed IT

3 Internal Scan

- IT Services Organizational Health
- Operational Performance

4 SWOT Analysis Matrix

Identifying IT's **strengths** suggests domains and functions to leverage to drive progress.

S

W

Identifying IT's **weaknesses** suggests areas for organizational change.

Identifying **opportunities** will help determine fruitful areas to seek strategic investment.

O

T

Identifying **threats** will suggest areas that IT should prioritize to mitigate organizational risk.

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Environmental Scanning Tools to Systematically Evaluate IT

The Environmental Scanning Process for IT

The steps below guide you through the three different scans—external, institutional, and internal—that make up the environmental scan, which then feeds the SWOT analysis. Use these resources selectively to meet your institution's needs. The three scans can be conducted in parallel if desired, but all should be completed before conducting the SWOT analysis.

To complete the picture of your institutional needs, refer also to the strategic alignment exercises in the ***IT Strategic Planning Discover Playbook, Part II***.

Four Steps to Conduct an Environmental Scan and SWOT Analysis

1. External Scan	2. Institutional Scan	3. Internal Scan	4. SWOT Analysis
Identify systemic and existential IT-related opportunities and threats in the broader market that may affect the institution.	*Identify campus-level context that impacts IT's ability to identify and meet strategic goals and shape investments.*	*Identify strengths and weaknesses within the central IT organization.*	*Using scan outputs, analyze the current and aspirational state of the IT organization, and identify areas of strategic opportunity and organizational risk.*
Tools:	Tools:	Tools:	Tools:
1) External Environment Scan Framework	4) Listening Tour Conversation Framework	8) IT Staff Skills Audit	11) Environmental Scan Information Checklist
2) External Factor Capture Form	5) Listening Tour Participant Checklist	9) IT Capabilities Review	12) SWOT Workshop and Worksheets
3) Issue Impact Analysis Exercise	6) IT Customer Satisfaction Survey Guidelines		13) SWOT Matrix Template
	7) Distributed IT Engagement Conversation Framework		

External Scan

Resources to Identify Opportunities and Threats in the Broader Market

STEP

1

- External Scanning Fundamentals
- External Environment Scan Framework
- External Factor Capture Form
- Issue Impact Analysis Exercise

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External Scanning Fundamentals

External Scanning Project Process

① **Conduct survey of external environment (publications, research organizations, peers)** to identify systemic trends and driving forces that have the capacity to affect the institution and/or IT organization. (*See* ***External Environment Scan Framework***, *p. 9.*)

② **Capture information regarding emerging trends and drivers**, assessing the evolution and rate of change per trend, as well as forecasting of future direction and potential implications for the institution. (*See* ***External Factor Capture Form***, *p. 10.*)

③ **Assess the potential impact of identified trends on the IT organization**, including analysis of trends' interconnections, their likelihood of affecting the institution, and the nature of their impact (positive, negative, neutral). (*See* ***Issue Impact Analysis Exercise***, *p. 11.*)

Staffing Suggestion

Activities in the *External Scan* require subject matter knowledge but usually do not need wide community input. They may be completed by assembled groups, a group of individuals working asynchronously, or by a single project owner in line with resource availability and as designated by the CIO or IT strategic planning working group.

External Scanning Project Outputs

At the conclusion of the External Scan, institutions should have the following completed documents to carry forward for SWOT analysis and IT strategy distillation:

External Factor Capture Forms

Collection of information regarding emerging issues and environmental trends that may impact the IT organization.

Issue Impact Analysis Exercise

Speculative projection of the potential for identified issues and trends to play a part in IT's support for institutional strategy, either as development opportunities or existential threats.

Tool 1: External Environment Scan Framework

Higher Education IT External Environment: Representative Topics

When considering trends and emerging issues, the following framework will help to ensure thorough and systematic scanning of an expansive external environment. The list is not exhaustive, but should be used to guide brainstorming efforts and information collection.

External Domain	Types of Information	Potential Sources
Technology Trends	• Emerging technologies and their application within and beyond education • Changes to vendor marketplace: mergers and acquisitions, emerging players and product trends • Trends in IT risks and cybersecurity attacks • Emerging trends in technology infrastructure	• Technology publications and research organizations • Ed-tech marketplace analysis • Campus Computing Survey • National watchdogs and cybersecurity groups (e.g., REN-ISAC)
Compliance and Regulation	• Data protection laws (national and international) • Accessibility laws (local and national) • Court cases against educational establishments or key vendors	• State, local, and international statutes, laws, and regulations • National and local newspapers and news magazines (including industry-specific publications)
IT Skills Marketplace	• Emerging trends in technology skills (hard, soft, management) • Emerging trends in IT organizational management (staffing models, sourcing models, team models) • Local and national IT skill marketplace analysis (wages, employment, demographics)	• Technology publications and journals (industry-neutral) • Technology thought leadership directives (EAB, EDUCAUSE, Gartner) • US Department of Labor statistics • Institutional IT recruiting statistics

Is it Worth Recording?

When scanning the external environment, consider the following to decide whether information is worth recording:

✔ **Is the topic or trend relevant to higher education?** (e.g., the trend impacts a mode of instruction or a major business process)

✔ **Is the trend's trajectory relevant to our IT environment?** (e.g., the trend concerns a key vendor in our technology stack or ecosystem)

✔ **Are the sources for the trend credible and cross-industry?** (e.g., trend is discussed in IT journals across different industry verticals)

✔ **Does it require IT to change in a significant way?** (e.g., the trend suggests greater technological autonomy in our campus constituents)

Tool 2: External Factor Capture Form

Instructions: Use the this form to document a systemic trend or driving force that has the capacity to affect the institution or IT organization. Fill out additional forms for other factors, numbering each. Seek to identify at least 20 key external factors in total.

Trend Overview

External Factor # _____

Provide a name for the driver, trend, or event identified, and a brief description if necessary.

_____

_____

_____

What evidence supports the strategic significance of this factor?

(Data, statistics, documentation – identify sources.)

_____

_____

_____

How is this factor currently impacting IT organizations or higher education institutions?

_____

_____

_____

_____

Implications for IT

What opportunities does this factor present for our institution or IT organization?

_____

_____

_____

_____

_____

What threats does this factor present for our institution, or IT organization?

_____

_____

_____

_____

Tool 3: Issue Impact Analysis Exercise

Assessing Likely Impacts to Validate Strategic Importance

Once trends are identified, determining their likely impact on the institution and the IT organization- or their relative importance for the IT strategy- is complex, as many factors affect multiple domains. An impact assessment framework can help CIOs and their planning teams compare trends' relevance to aid in prioritizing IT's strategic initiatives.

IMPACT ASSESSMENT CRITERIA					SCORE
TIME FRAME *When will a mainstream impact begin to appear?*					
Now 5	1-2 Years 4	3-5 Years 3	5-10 Years 2	10+ Years 1	
SCOPE *How widely will the trend be accepted/adopted?*					
Global 5	Widespread 4	Higher Ed 3	Organizations 2	Individuals 1	
EFFECT *How strong will the effect of this trend be?*					
Transformative 5	Major 4	Moderate 3	Minor 2	Insignificant 1	
LIKELIHOOD *What is the likelihood that this trend will have an impact on the institution?*					
Certain 5	Likely 4	Possible 3	Unlikely 2	Rare 1	
URGENCY *What is the required speed of response by the institution to the trend?*					
Now 5	1-2 Years 4	3-5 Years 3	5-10 Years 2	10+ Years 1	
TOTAL IMPACT SCORE:					

INDUSTRY-WIDE applies to the Time Frame, Scope, and Effect criteria. *INSTITUTIONAL* applies to the Likelihood and Urgency criteria.

Putting the Framework in Action

1 A single person or defined group should score each external factor using the framework at left. Working with the same individual or group to determine each impact score will promote consistent scoring across factors.

2 Calculate total score for each external factor. If working in a group, score factors independently and then bring together to determine averages per factor.

3 Force order rank external factors, based on the total impact score and identify appropriate next steps for each in line with its rank.

Interpreting the Total Scores

20-25 Act Now
Make a decision immediately about how to respond to this issue; if appropriate long-term initiatives exist, include steps in your strategic plan.

15-19 Manage
Consider now how you will manage these issues as they develop; include actions in your plan that address these factors.

<14 Watch
These issues are unlikely to have impacts on campus that require action in a strategic plan, but you should continue to track them.

Source: Adapted from "Shaping Tomorrow", Thinking Futures Trend Relevance Matrix.

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Institutional Scan

Resources to Identify Campus-Level Contexts that Affect IT Strategy

STEP

2

- Institutional Scanning Fundamentals
- Listening Tour Conversation Framework
- Listening Tour Participant Checklist
- IT Customer Satisfaction Survey Guidelines
- Distributed IT Engagement Conversation Framework

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Institutional Scanning Fundamentals

Institutional Scanning Project Process

1 **Identify customer needs and goals to inform IT's strategic alignment efforts**, either using institutional and departmental strategic plans, or a listening tour of key campus stakeholders. (*See Listening Tour Conversation Framework, p. 14, and IT Listening Tour Participant Checklist, p. 15.*)

2 **Compile customer satisfaction data from listening tours and campus surveys** to determine areas where the IT organization is missing operational goals or excelling in customer relationship management. (*See Listening Tour Conversation Framework, p. 14, and Customer Satisfaction Survey Guidelines, p. 16.*)

3 **Assess distributed IT responsibilities and performance** to better understand how central IT and other IT units could more closely align with and serve institutional goals. (*See Distributed IT Engagement Conversation Framework, p. 17.*)

Staffing Suggestion

The activities and outputs in the *Institutional Scan* involve leadership-level activities and group activities. Stakeholder engagement should be completed by senior IT leadership or their delegates to promote open conversation between peers. Surveys should be reviewed by members of the IT strategic planning working group or other participants if they delegate the task.

Institutional Scanning Project Outputs

At the conclusion of the Institutional Scan, institutions should have the following documents to carry forward for SWOT analysis and IT strategy distillation:

Listening Tour Conclusions

A summarized aggregation of listening tour and focus group conversations representing identified campus needs and ongoing projects. This may also lead to the definition of institutional strategic goals, in the absence of a strategic plan.

IT Customer Satisfaction Data

Quantitative and qualitative information regarding campus stakeholders' opinions of the campus IT brand.

Distributed IT Engagement Feedback

A summary analysis of how the current distribution of responsibilities serves institutional goals and contributes to IT strengths or weaknesses.

Tool 4: Listening Tour Conversation Framework

Instructions: Use these questions to prepare for conversations with IT constituents across campus. While it is not necessary to ask exactly the same questions in each interview, try to collect some information in each of the four identified areas.

Listening Tours Surface Diverse Campus Needs

Strengths, Weaknesses, Opportunities and Threats Emerge from Cross-Campus Conversations

Conversations with academic and administrative leaders (as well as focus groups with larger groups of campus constituents) should concentrate on unit missions and goals. Technology should be a secondary topic introduced only when IT has clarified the unit or group's operational strategies and needs for the coming years.

Where documented institutional strategic goals are absent, the listening tour can be an excellent way of identifying the institution's de facto goals.

Four Tips For Productive Engagements

To maximize engagement, CIOs and their teams should focus on multimodal communication efforts and interactive brainstorming with stakeholders across campus.

Stay future focused when trying to understand constituents' business and informational needs

Ask about direction and execution to uncover both the "what" and "how" of campus's desired relationship with IT

Leverage social media to extend capacity for information gathering across digital conversational platforms

Send ahead a copy of your questions to participants and encourage later follow up with further ideas and interests

Key Questions to Ask During the Listening Tour

Direction Questions

1 *What Is Your Department's Mission?*

- What is the department trying to accomplish in the next three years? How will the department be different in three years than it is today?
- What are the major focuses of your staff in the next three years?

2 *How Does Your Team Work with IT?*

- What are ways in which your staff and constituents use technology?
- Are there new and innovative ways that your team wants to use technology that we can discuss?

3 *What Does a Successful Relationship Look Like?*

- If IT meets all your expectations in the coming year, what will you be able to achieve that you couldn't last year?
- How will our team know that we are doing a good job?

Execution Questions

4 *How Does IT Provide Services to Your Team?*

- In the past, were you satisfied with IT's services?
- What would you change how you work with central IT to achieve your goals?

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Tool 5: Listening Tour Participant Checklist

Instructions: Identify listening tour participants from each of the groups listed below. Aim for seven or more participants in each group to collect diverse opinions, and conduct as many conversations as time will allow. Augment these lists with your institutional organizational chart and with your awareness of campus influencers.

	Contact Title	Outreach Sent?	Meeting Date	☒
Institutional Leaders	President			
	Provost			
	President/Provost Chiefs of Staff			
	Chief Administrative Officer			
	Chief Financial Officer			
	Chief Operating Officer			
	Chief Advancement Officer			
	VP Research			
	VP Student Affairs			
	VP Enrollment Management			
	Dean of Continuing and Online Education			
	Facilities Director			
	Faculty Senate Leadership			
	Dean's Council Members			
	Board of Trustees IT Group			
	Other_____			

	Contact Title	Outreach Sent?	Meeting Date	☒
Key IT Partners	Institutional Research			
	Distributed IT Directors			
	IT Governance Group Leaders			
	Registrar			
	HR Director			
	Procurement Director			
	Admissions Director			
	Alumni Affairs Director			
	Athletics Director			
	Deans of Engineering, Computer Science Schools			
	Other_____			
Key 'Influencers'	Student Leadership Groups			
	Department Chairs			
	Principal Investigators			
	Task Force Members			
	Other_____			

Tool 6: IT Customer Satisfaction Survey Guidelines

Instructions: Use these guidelines to develop, distribute, and draw conclusions from a customer satisfaction survey.

Get the Most Out of Your IT Customer Satisfaction Survey

Customer satisfaction surveys create a formal method to collect campus constituents' feedback. Surveys can also supplement listening tour feedback, and help align technology units' strategy with customer wants and needs. To maximize the value of satisfaction surveys, IT units should be engaged in all three key phases of survey administration.

1
Designing the Survey
Ask Targeted Questions to Get the Right Data

Select Demographic Questions that Expand Analysis Options

Demographic questions provide context and background about each respondent to facilitate analysis of particular interest groups or areas of campus.

Measure Satisfaction and Value with Likert-Scale Questions

Questions with Likert-scale response options (ranging from "very satisfied" to "very dissatisfied") provide general information about campus attitudes to IT service and value.

Solicit Immediately Actionable Information Through Comments

Comment boxes provide space for customers to articulate specific praise or complaints and equips IT with immediately actionable feedback.

2
Deploying the Survey
Create an Outreach Plan to Maximize Response Rates

Target a Diverse and Inclusive Respondent Pool

Sending the survey to all campus constituents (faculty, staff, students) maximizes responses, which data analysts can later filter.

Promote Survey Through Multiple Channels

Emailing surveys from executive accounts improves response rates, while including links in other correspondence (and other media) maximizes visibility around campus.

Maximize Response Rates Through Timing and Incentives

Avoiding busy times on the academic calendar or overlap with other unit surveys will reduce survey competition, while raffle incentives for participants will improve survey uptake.

3
Analyzing the Results
Use Feedback to Make Customer-Centric Decisions

Analyze Quantitative Responses to Identify Areas for Improvement

Using quantitative data and regression analyses will allow IT to determine which areas have the greatest impact on constituent satisfaction, and target responses.

Address Comments from Open-Ended Questions Directly

IT should put in place a process to triage comments to the appropriate functional area, where directors should implement plans to directly address emergent concerns.

Communicate Results and Plan of Action to Campus Community

As well as carrying the results forward for IT's own SWOT analysis, survey information should be shared with constituents to promote IT's proactive approach to engagement.

Tool 7: Distributed IT Engagement Conversation Framework

Instructions: Use these questions to prepare for conversations with distributed IT providers and customers across campus. While it is not necessary to ask exactly the same questions in each interview, try to collect some information in each of the three identified areas.

Enfranchising Distributed IT Staff Gives Broader Perspective on the Institution's IT Strategy

Regardless of whether the scope of your IT strategic plan extends beyond the central IT organization, a "one IT" cross-institutional perspective should be part of the institutional scan. This can be incorporated into your broader campus listening tour, but it involves special considerations that require the input of distributed IT leaders and customers alike.

Key Questions for Leaders of Distributed IT

1 *How do you serve your customers?*

- What particular value or services do you provide that cannot be delivered by central IT or by third parties?
- What is your role in enabling the customer unit to reach its strategic goals?

2 *How do you fit into the institutional IT environment?*

- What steps do you take to avoid duplication of services?
- How do you learn about and address cross-environment issues such as security, compliance, and standards adoption?

3 *How should institutional IT units work together?*

- How should distributed IT participate in issues of cross-institutional significance (e.g., participation in IT governance, council of IT leaders)?
- What institutional (as opposed to unit) strategic goals do you support?

Key Questions for Customers of Distributed IT

1 *Why do you use distributed IT services?*

- What particular value or services does your local IT unit provide that you prefer over centralized or third party options?
- How do distributed IT services help you reach your unit's strategic goals?

2 *What is your relationship with campus IT organizations?*

- Which best describes the way you see your local IT unit: 1) a utility, 2) a tactical partner, 3) a strategic partner.
- Which best describes the way you see central IT: 1) a utility, 2) a tactical partner, 3) a strategic partner.

3 *How should IT responsibilities be divided?*

- Is there anything your local IT unit does now that you think should be assumed by central IT?
- Is there anything central IT does now that you think should be assumed by your local IT unit?

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Internal Scan

Resources to Identify Strengths and Weaknesses in the IT Organization

3

- Internal Scanning Fundamentals
- IT Staff Skills Audit
- IT Capabilities Review

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Internal Scanning Fundamentals

Internal Scanning Project Process

1 **Conduct a skills assessment** to capture staff capabilities, demographic data, potential turnover, and build a picture of IT's current and projected capacity. (*See* ***IT Staff Skills Audit****, p. 20.*)

2 **Review the full range of IT capabilities** to identify strategically significant strengths and weaknesses. (*See* ***IT Capabilities Review****, p. 21.*)

3 **Assemble internal review outputs** for distribution to participants in the SWOT exercise. (*See* ***SWOT Analysis****, p. 24.*)

Internal Scanning Project Outputs

At the conclusion of the Internal Scan, institutions should have the following documents to carry forward for SWOT analysis and IT strategy distillation:

IT Staff Skills Audit

Detailed information on the current and projected staffing of the IT organization.

IT Capabilities Review

List of internal capabilities that significantly contribute to institutional goals (strengths) or that constitute obstacles unless remediated (weaknesses).

Staffing Suggestion

The activities and outputs in the *Internal Scan* are flexible, and can be completed by assembled groups, a group working asynchronously, or by a single project owner in line with resource availability and as designated by the CIO, or IT strategic planning working group.

Tool 8: IT Staff Skills Audit

Instructions: Distribute a skills audit to each member IT staff member to complete a self-assessment. Ask departmental heads or direct managers to complete assessments for their staff or direct reports for external evaluation of IT staff skills.

Mapping Current Skills and Competencies in the IT Organization

Auditing IT staff's current skills and competencies provides valuable data for IT leadership to determine staff alignment with industry trends and institutional needs. It can also uncover opportunities to leverage existing but unused skills on campus.

Skills Audit

Please indicate your/your staff member's level of knowledge for each skill and competency.

1. Architecture	Casual	Working	Competent	Expert
Hyper-V	○	○	○	○
MVC Architecture	○	○	○	○
2. Audio Visual Software				
Adobe Premier	○	○	○	○
Audacity	○	○	○	○
Final Cut	○	○	○	○
Garage Band	○	○	○	○
iMovie	○	○	○	○
Pro Tools	○	○	○	○
3. Business Intelligence				
Service Management	○	○	○	○
Crystal Reports	○	○	○	○
Dashboard Design	○	○	○	○
ETL Tools	○	○	○	○
OBIEE Tools	○	○	○	○
Statistical Analysis	○	○	○	○

50. Competencies	Casual	Working	Competent	Expert
Accountability	○	○	○	○
Active Listening	○	○	○	○
Business Analysis	○	○	○	○
Business Communication	○	○	○	○
Business Plan Creation	○	○	○	○
Business Development	○	○	○	○
Change Agency	○	○	○	○
Coaching Others	○	○	○	○
Collaboration	○	○	○	○
Conflict Resolution	○	○	○	○
Continuous Improvement	○	○	○	○
Contract Management	○	○	○	○
Creativity	○	○	○	○
Critical Thinking	○	○	○	○
Delegation	○	○	○	○
External Awareness	○	○	○	○
Internal Org Awareness	○	○	○	○

Applying aggregate weighting to determine IT's overall proficiency will help drive organization-level discussions.

At **Cornell University**, the IT department used the following formula to determine organizational "Productive Skill Equivalent" scores for each skill and competency assessed:

0.8*#working + 1.0*#Competent + 1.2*#Expert

▶ Conduct with Care

Successful staff skill auditing requires comprehensive coverage and honest answers from participants. To effectively manage staff participation, auditors should:

- ✔ Emphasize benefits for staff from organizational skills mapping exercises to allay employment concerns

- ✔ Include staff in the skills identification and survey building process to ensure thorough and meaningful skill coverage

- ✔ Provide ways for staff to express feedback and concerns (anonymously or in person) to enhance trust

Source: IT Skills @ Cornell Evaluation, Cornell University; EAB interviews and analysis.

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Tool 9: IT Capabilities Review

Instructions: The worksheets on the following pages outline 31 different IT capabilities organized in eight categories. This is not an exhaustive list; it is designed as a starting point and you should add or subtract capabilities as appropriate. Use the worksheets to note areas of strength and weakness that have a bearing on your institution's strategic needs. You may wish to do this in a small IT leadership team, with the IT strategic planning working group, or with a wider group. Discuss to resolve differing perceptions and document the strengths and weaknesses that are clearly significant for IT's strategic future.

With respect to your institution's strategic goals and customer needs over the period of your IT strategic plan, rate each IT capability as a strength (S), weakness (W), or neither (N). Focus on strengths and weaknesses that have strategic significance. For example, if a particular capability needs improvement but has no bearing on institutional strategic goals, mark it as "neither" rather than "weakness." Use the notes column to record reasons why you've marked an item S or W.

Walk Through IT Functional Areas to Inquire about Strengths and Weaknesses

Category	Capability	Description	S/W/N
Leading the IT Organization	Strategic Planning	Align IT organization with institutional strategy and set long-term IT vision, goals, objectives	
	Budgeting	Manage financial resources	
	Performance Measurement	Use metrics to track the IT organization's performance and effectiveness	
	Technology Innovation	Identify and support emerging technologies	
Managing the Service Portfolio	Project Portfolio Management	Maintain visibility into current and future project needs	
	Services Maintenance and Enhancement	Maintain and update systems and services in a way that maximizes value and minimizes disruption	
	Service Delivery Management	Deliver and support a strategic portfolio of services	
	Infrastructure Management	Provide and maintain the IT infrastructure campus needs to do its work	
	Project Management	Ensure that IT projects are delivered on time, on budget, and with high levels of user satisfaction	

A **strength** is an internal capability that significantly contributes to achieving institutional goals; a **weakness** is one that will be an obstacle unless corrected. A capability the does not make a significant strategic contribution but is also not a strategic obstacle (probably most of them) is **neither** a strength nor a weakness.

Where multiple related capabilities are identified as strengths or weaknesses, consider combining and renaming them to more compactly convey what the institution can rely on (strengths) and what it needs to fix (weaknesses).

Selecting Strengths and Weaknesses

The IT capabilities review should not produce a laundry list of routine concerns. To identify high-impact strengths and weaknesses:

✓ Keep the focus strategic, winnowing out operational considerations or short-term issues

✓ Where ratings differ among participants, discuss and seek a consensus

✓ Combine or summarize related items and give them a name that better describes the specific strength or weakness you are highlighting

Source: EAB interviews and analysis.

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Tool 9: IT Capabilities Review Worksheet – Page 1

See page 21 for instructions.

Category	Capability	Description	S/W/N	Notes
Leading the IT Organization	Strategic Planning	Align IT organization with institutional strategy and set long-term IT vision, goals, objectives		
	Budgeting	Manage financial resources		
	Performance Measurement	Use metrics to track the IT organization's performance and effectiveness		
	Technology Innovation	Identify and support emerging technologies		
Managing the Service Portfolio	Project Portfolio Management	Maintain visibility into current and future project needs		
	Services Maintenance and Enhancement	Maintain and update systems and services in a way that maximizes value and minimizes disruption		
	Service Delivery Management	Deliver and support a strategic portfolio of services		
	Infrastructure Management	Provide and maintain the IT infrastructure campus needs to do its work		
	Project Management	Ensure that IT projects are delivered on time, on budget, and with high levels of user satisfaction		
	Cost Transparency	Measure and communicate IT costs to end users		
Growing the IT-Campus Partnership	Stakeholder Engagement	Maintain open communication lines with key IT users		
	Coordination with Distributed IT	Maintain open communication lines with distributed IT staff		
	IT Branding	Develop and market a clear IT brand		
	Business Process Improvement	Partner with business units to improve their business processes		
Building a Data-Driven Institution	Data Governance	Support the creation and use of clean, consistent data across the institution		
	Enterprise integration	Integrate disparate sources of data into a coherent, usable enterprise data source		
	Decision Support	Provide decision-makers relevant data and the support they need to leverage it		

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Tool 9: IT Capabilities Review Worksheet – Page 2

See page 21 for instructions.

Category	Capability	Description	S/W/N	Notes
Supporting the Academic Mission	Research Computing	Provide the computing resources researchers require		
	Digital Collaboration Tools	Provide the tools campus members need to collaborate digitally		
	Instructional Technology	Support the technology tools instructors want to use		
Managing IT Talent	IT Workforce Planning	Plan for future IT talent needs		
	IT Staff Development	Support IT staff in their career/professional development		
	IT Staff Performance Management	Manage individual staff members' performance		
	IT Leadership Development	Provide the next generation of IT leaders opportunities to develop their skills and prepare for future leadership roles		
Minimizing Technology Risk	Data Access	Manage secure access to institutional data		
	Asset Management	Track and protect physical IT assets across campus		
	Incident Response Planning	Prepare for information security breaches		
	Disaster Recovery/Business Continuity Planning	Plan for events that cause major service outages		
	Security Awareness/Training	Maintain user awareness of security threats and the importance of hygienic behavior for mitigating them		
Distributed IT Purchasing	Vendor Management	Partner with IT vendors to protect and advance the institution's interests		
	Distributed IT Purchasing Oversight	Partner with IT consumers to ensure decentralized purchasing of IT goods meets institutional guidelines		
Other Items				

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SWOT Analysis

Resources to Guide Your SWOT Analysis Workshop

4

- SWOT Analysis Fundamentals
- Environmental Scan Information Checklist
- SWOT Workshop and Worksheets
- SWOT Matrix Template

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SWOT Analysis Fundamentals

SWOT Analysis Process

1 **Compile and distribute outputs from external, institutional, and internal IT scanning efforts** in advance of a scheduled SWOT analysis to give participants time to familiarize themselves with the information collected. (*See Environmental Scan Information Checklist, p. 26*)

2 **Assemble participants to conduct a SWOT analysis workshop,** discussing scanning outputs to identify and crystalize the IT organization's strengths, weaknesses, opportunities and threats as identified in the environmental scanning information. (*See SWOT Workshop, p. 27)*

3 **Document workshop findings** for later use in preparation of IT strategic themes, goals, and objectives. You may wish to turn the documented workshop results over to a subset of participants for further refinement and finalizing (*See SWOT Matrix, p. 30*)

Staffing Suggestion

The *SWOT analysis* is a group exercise, and could be completed by the IT leadership team and/or the IT strategic planning working group. Participants should receive documentation ahead of time, dedicate a half-day to workshop-based analysis, and designate an individual to capture results.

SWOT Matrix Analysis Outputs

At the conclusion of the SWOT analysis, strategic planning groups should have the following documents to carry forward for IT strategy distillation:

List of IT's Strengths, Weaknesses, Opportunities and Threats with Descriptions

Provides detailed information about the nature and meaning of SWOT items.

Completed "Top 5" SWOT Matrix

Visual representation of the major SWOT items.

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Tool 10: Environmental Scan Information Checklist

Instructions: Prior to conducting the SWOT workshop, collect and distribute informative materials from the environmental scan to workshop participants, allowing at least a week for review. Strive for concise and readable documents that focus on essential issues. The environmental scan outputs described earlier in this playbook are listed below; you may wish to add other materials as well. Also be sure to store the materials for reference during later stages of the IT strategic planning process.

Compiling a Comprehensive Environmental Scan Documents for SWOT Analysis

External Environmental Scan

Issue and Trend Documentation ○

Issue Impact Analysis ○

Institutional Environmental Scan

Listening Tour Needs Compilation ○

IT Customer Satisfaction Data ○

Distributed IT Engagement Feedback ○

Internal Environmental Scan

Staff and Skills Audit ○

IT Capabilities ○

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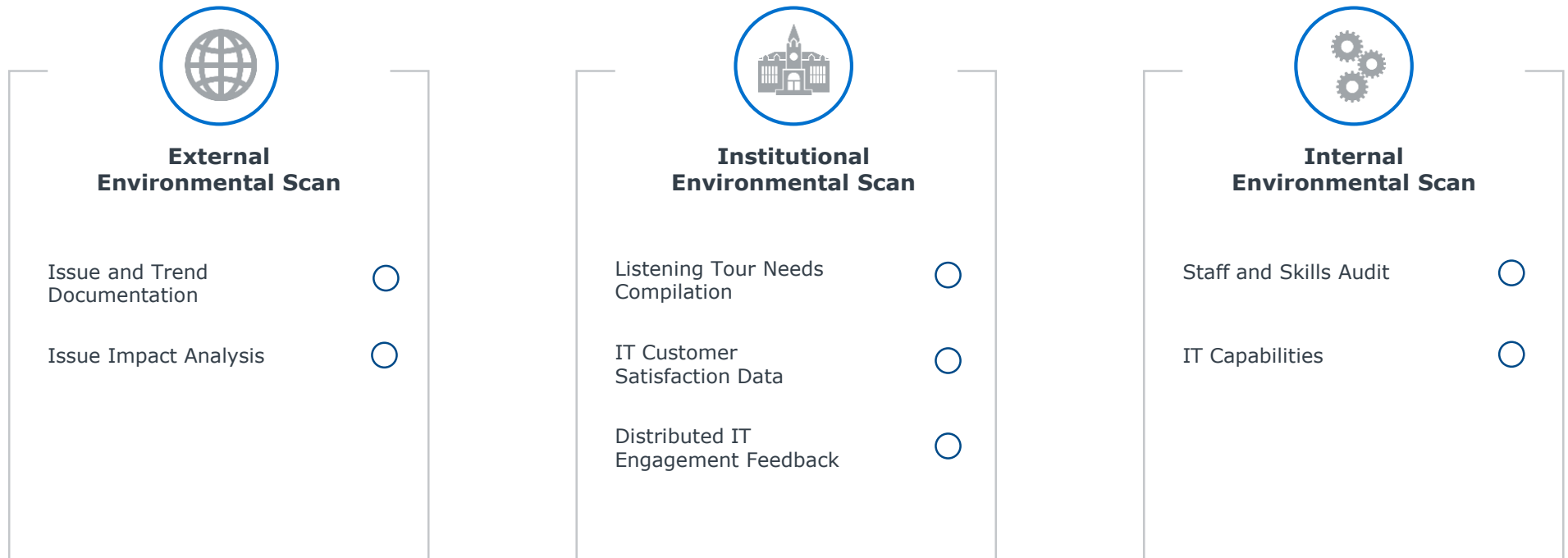
Tool 11: SWOT Workshop

Identifying SWOT Items

This exercise breaks up work among teams dedicated either to strengths/weaknesses items or opportunities/threats items. After items are drafted, all participants vote on the top items in each category. The goal is not to create a final SWOT matrix, but to elicit community ideas and provide a collection of drafts that the IT strategic planning working group or other body can draw upon when finalizing the matrix.

1   **Facilitator separates participants into groups**

Participants will be assigned either to a Strengths/Weaknesses group or to an Opportunities/Threats group. All participants should have read all the preparatory material.

2   **Within groups, participants complete the appropriate *Individual SWOT Analysis Worksheet* (p. 28-29), then share answers**

Each group selects a reporter who writes draft items on a flipchart. Note common elements among different items, scrutinize items for clarity, accuracy, and strategic significance.

3   **Participants revise draft SWOT items as desired**

Participants may update their drafts individually or collaborate with others at their table.

4   **Groups break up for lightning review and voting round**

Participants circulate around the room reading the posted drafts. Each person has five voting stickers each for S, W, O, and T which they affix to the draft items of each type they think best reflect the strategic needs of the institution.

5   **Top-voted statements read aloud**

Return to tables. Facilitator identifies the five top-voted items in each category and reads them aloud. Draft statements are documented with author name(s) and vote count and recorded for use by the IT strategic planning working group (or a subset of the group) during the creation of a finalized SWOT matrix.

What to Look for in a SWOT Matrix

Strengths/weaknesses are internal to the IT department; opportunities/threats are *external*

Taken as a whole, the matrix comprehensively expresses the environment in which IT operates

Items have strategic, not merely tactical significance

Items are easy to understand and compactly expressed

Needed for This Exercise

- Tables for group work
- Flipcharts, markers at each table
- Postable notes (index card size)
- Worksheets
- Voting stickers (five per item per person)
- 90–120 minutes

Tool 11: Individual SWOT Analysis Worksheet #1

Strength	Why is this a current strength? Please provide specific examples.	What are the implications for the IT organization and institution?	Weakness	Why is this a current weakness? Please provide specific examples.	What are the implications for the IT organization and institution?

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Tool 11: Individual SWOT Analysis Worksheet #2

Opportunity	Why is this an area of opportunity? Please provide specific examples.	What are the implications for the IT organization and institution?	Threat	What is the nature of this threat? Please provide specific examples.	What are the implications for the IT organization and institution?

Tool 12: SWOT Matrix Template

Strengths

Weaknesses

Opportunities

Threats

IT Forum

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