Auditing Your Legacy IT Systems

Where do your organization's digital platforms and IT systems stand? If your systems are failing, holding you back or presenting obstacles from meeting your business goals, it may be time to audit them and make changes.

This exercise will help you evaluate the current state of your organization's digital properties through the lens of systems and components. As a result, you'll surface areas for growth and gain confidence in where you're spending time and money — ensuring the work you have scheduled will have the most impact. Additionally, it can help you flag legacy systems that may need upgrades in the near future.

01 CONTAINER AND COMPONENT AUDIT

Break down the enterprise system(s) into discrete areas that you can assess.

02 GAPS ANALYSIS

Identify the most significant areas of concern in the existing system.

03 IMPACT ASSESSMENT AND NEXT STEPS

Identify actions that would significantly improve your system of applications.

READY WHEN YOU ARE

If you need a partner in walking through this exercise, or would like to connect with someone who can guide you in identifying next steps, reach out to us.

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01 Container and Component Audit

To begin your audit, use the worksheet below to break down the enterprise system(s) into discrete areas that you can assess. Generally, this should be a container-level view (i.e., separately deployable applications). These applications are maintained by you (e.g., a custom claims processing service) or are a product or service that you pay for (e.g., authentication service tool like OKA). Additionally, it can be useful to break out significant components of business systems you maintain that likely have substantially different support needs. For example, in a web application it is often useful to have separate entries for the business logic and the front-end, even if they are deployed as a part of the same container.

EXERCISE

List each component including the following information in the space provided below.

Try to keep this stage quick and simple. Don't focus too heavily on fine-tuning names, crafting descriptions or exhaustively itemizing supporting business technologies. The goal is not a system diagram but a list of items to evaluate.

NAME

For a third-party system, use the brand or product name (e.g., Pardot). For an owned business system, name it according to function.

DESCRIPTION

A single phrase or sentence describing the function of the platform/system.

TECHNOLOGIES

If internal, list the major off-the-shelf technologies the system is built on. If external, name the vendor and include whether the system platform is on-premise or in the cloud. If you don't know this, skip it.

EXAMPLE

NAME:	Authentication Service	**NAME:**	Claims Processing Service
TECHNOLOGIES:	.NET Web Forms	**TECHNOLOGIES:**	.NET MVC
DESCRIPTION:	Homegrown identity management sytems	**DESCRIPTION:**	Custom web app that provides an API to evaluate claims

CONTAINER AND COMPONENT AUDIT EXERCISE

NAME:

TECHNOLOGIES:

DESCRIPTION:

NAME:

TECHNOLOGIES:

DESCRIPTION:

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TECHNOLOGIES:

DESCRIPTION:

02 Gaps Analysis

In this stage, your goal is to identify the most significant areas of concern in the existing systems. In order to surface this information, assign a red, yellow or green value to each component across four areas of analysis: Platform, Quality Attributes, People, and Process. By doing so, you'll create a heatmap to prepare you for step three. **If you need an idea of the questions we evaluate, check out the detailed list of descriptions in the appendix.**

EXERCISE

In the space provided on the following pages, list each component as a row on the grid.

Moving box by box, use a marker to assign a traffic light indicator: green, yellow or red, using the following guidelines:

🟩	**GREEN**	You have high confidence in how the business system is performing and are rarely concerned about it.
🟨	**YELLOW**	The system is functioning but has had issues either in the past, or you anticipate future issues.
🟥	**RED**	You have significant concerns or frequent issues with this system.

EXAMPLE

EXAMPLE COMPONENTS	PLATFORM	QUALITY ATTRIBUTES	PEOPLE	PROCESS
Authentication Service	R	Y	Y	Y
Claims Processing Service	Y	G	R	Y

GAPS ANALYSIS EXERCISE

GREEN High confidence **YELLOW** Has had issues **RED** Significant concerns

NAME OF COMPONENT	PLATFORM	QUALITY ATTRIBUTES	PEOPLE	PROCESS

03 Impact Assessment

In this stage, your goal is to identify actions that would significantly improve your system of applications. Start by looking at the heat map you made in the previous step and look for either critical components that are underperforming or applications that are performing substantially worse than their peers. Go through each one of those applications and ask yourself:

1. What would need to change for me to feel confident in that application?

2. What is a concrete step I could take this quarter that would show an impact on that concern?

EXERCISE

Write down those changes in the template below.

When you have a list of 5-10 concrete changes, prioritize them. Use the grid included below to plot each of those changes based on their effort and impact.
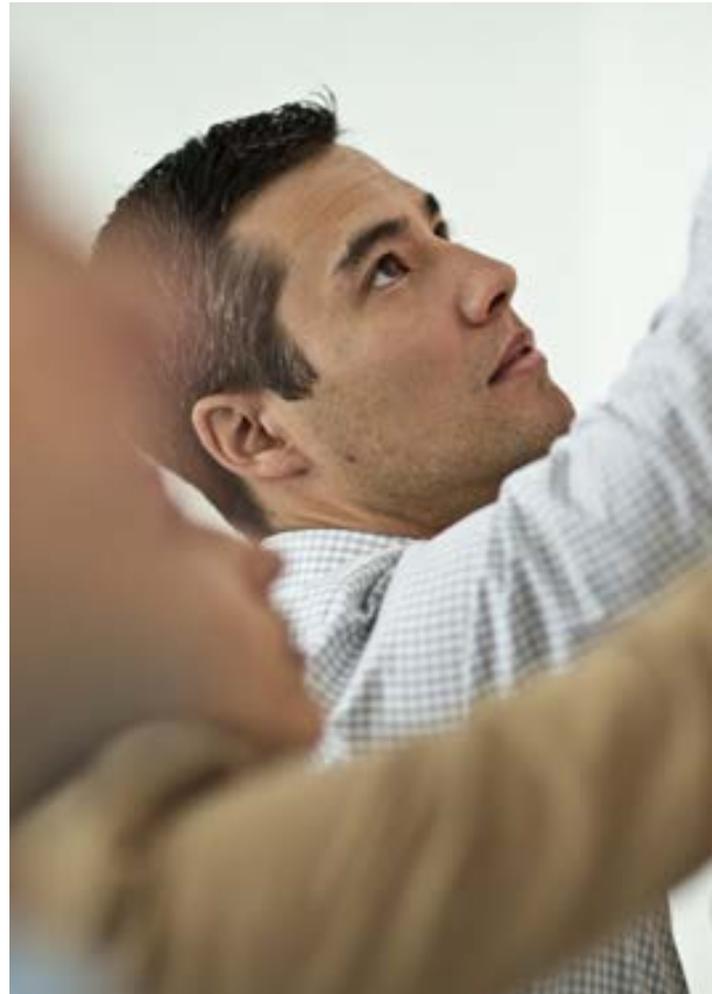
EXAMPLE

ITEMS NEEDED FOR ME TO FEEL CONFIDENT	EFFORT	IMPACT	COST
1. Migrate Authentication Service to Okta	MEDIUM	HIGH	MEDIUM
2. Hire additional support for Joe to increase knowledge of Claims Processing Service	LOW	HIGH	MEDIUM
3. Build continuous delivery pipeline for Claims Processing Service	HIGH	HIGH	LOW

IMPACT ASSESSMENT EXERCISE

Mark effort levels with **HIGH**, **MEDIUM** or **LOW**

ITEMS NEEDED FOR ME TO FEEL CONFIDENT	EFFORT	IMPACT	COST

At this point you should be in a place where you have explored the problem space well and identified several discrete high-value initiatives. This exercise is meant to get you started. Translating those initiatives to reality and aligning your team on the next steps requires dedication and effort.

About Nerdery

Nerdery is a digital business consultancy. We take companies from today to their digital futures, working at the leading edge of strategy, design and technology to help clients evolve and thrive. By focusing on business outcomes, Nerdery crafts impactful digital experiences and infrastructures that accelerate digital transformations, innovations, modernizations and operational initiatives. Nerdery was founded in 2003 and has offices in Minneapolis, Chicago and Phoenix.

Nerdery can provide your organization with a custom framework and implementation roadmap to increase velocity and capture the value latent in your systems.

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PLATFORM ASSESSMENT GUIDELINES

Fitness for Function:
Does it resolve a business need and integrate well with business processes? Are you able to diagnose problems?

Ongoing Investment:
What ongoing expenses for licensing, hosting, and maintenance are required?

Existing Assets:
Do you have existing codebases or integrations that can be improved or refactored?

Platform Maturity:
How stable is the platform? How likely is this product to be supported for the next 5 years? Is it an acquisition target?

Community Involvement and Vendor Support:
Are there active vendor or open source communities supporting the platform or the underlying technologies?

QUALITY ATTRIBUTES

Regulation and Compliance:
Does the business platform comply with current regulations? Has the regulatory environment changed since implementation?

Accessibility:
If the enterprise platform is user-facing, is it accessible to users who need assistive technology?

Scalability:
What are your projected scalability needs and how much effort would be required to meet them?

Responsiveness:
How quickly does the system return requests and allow first user interaction?

Modifiability:
How well does the system accommodate new features and requirements?

Security:
How long would it take for you to detect suspicious activity in the enterprise business system?

Reliability:
What availability guarantees are you comfortable offering to your users?

PEOPLE

Talent Maturity:
Do you have a healthy mix of experience on your team to maintain the systems or business processes?

Talent Skill Blend:
Are you missing critical skills from the team supporting the component?

Talent Availability:
How easy is it to hire people to support the platform? What is the cost of training if hiring is not an option?

Succession Planning:
Is this application supported by a team of people or is there a single key individual?

PROCESS

Accuracy of Functional Interpretation:
As new features are released to production, how well do they address the original need or expectation?

Lead Time for Changes:
How long does it take from identification of a need to the release of a change?

Time to Restore Service:
When service goes down, how long does it take to restore?

Change Failure Rate:
When was the last time you had to roll back a change or reprioritize work to deal with a major bug in production?