

Business Impact Analysis

Process Name: Domain Services & Identity Management (Microsoft 365 Authentication)

Date: October 24, 2025

Unit: EcoMetricx - Company-Wide / IT Infrastructure

Process Description

Core Function: Microsoft 365 serves as EcoMetricx's primary identity provider and authentication backbone. All employee access to critical business systems depends on successful Microsoft account authentication with multi-factor authentication (MFA) via Microsoft Authenticator app.

Primary Services Dependent on Microsoft 365 Authentication:

- **Email (Outlook):** Primary business communication channel - all employee email addresses (@ecometricx.com) hosted on Microsoft 365
- **Microsoft Teams:** Real-time collaboration, meetings, instant messaging, file sharing
- **OneDrive:** Cloud storage for documents, code snippets, work files
- **SharePoint:** Document management, shared resources, team sites

Secondary Services Using Microsoft SSO/Email Authentication:

- **Slack:** Team communication (authenticated via work email)
- **Atlassian Confluence:** Knowledge base, documentation, project wikis (authenticated via work email)
- **GitHub:** Source code management tied to work email addresses
- **AWS Console:** Cloud infrastructure access (users authenticated via work email)

Authentication Architecture: Two-factor authentication required using Microsoft Authenticator app on personal mobile devices. Without both domain password AND MFA approval, no access is granted to any service.

Organizational Structure: Fully remote company with no physical headquarters or on-premises infrastructure. All employees work from distributed locations, making digital access the ONLY way to work.

Critical Dependency Chain: Microsoft 365 failure → Cannot access email → Cannot authenticate to Slack → Cannot contact IT support → Cannot coordinate incident response → Complete organizational paralysis.

Business Value: This authentication infrastructure is the foundational layer enabling ALL business operations. Without it, employees cannot communicate, collaborate, access files, write code, or perform any work activities. Failure means complete business stoppage.

Critical Dates and Impact Timeline

Date/Time	Details	Time Until Impact			
		N	M	S	C
	Normal Operation	<5	<15	<60	>60

- N: None – There is no impact on any work function. Examples of this include processes that are only utilized intermittently.
- M: Moderate – The process is causing minor or moderate disruption to the function of the department itself or to another department with a downstream dependency.
- S: Severe – The failure of the process results in the department or another department with a downstream dependency being unable to function.
- C: Catastrophic – The failure of the process results in a disruption of the university's daily functioning.

Operational and Financial Impact

Impact:	Incident coordination failure (primary comms & SSO unavailable) → inability to execute IR or operate.		
Time:	≥60 minutes	Severity Level:	Catastrophic (C)
Impact:			Direct financial burn (labor): ≈\$2,000 per hour of outage (≈\$16,000/day; ≈\$96,000/work-week).
Time:	Per hour of outage	Severity Level:	Severe (S)

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Impact:			Emergency workaround costs (Google Workspace trial + reconfig): ~\$1,500 one-time if outage >1 day; productivity only 30–40% until SSO restored
Time:	>1 day outage	Severity Level:	Moderate → Severe (M/S)
Impact:			SOC 2 schedule slip risks \$430,000 in accessible funds (expected loss: ~\$43k @ 7-day slip; \$107.5k @ 14-day; \$215k @ 30-day).
Time:	≥7 days (slip).	Severity Level:	Catastrophic (C).
Impact:			

Impact:	Loss of Microsoft 365/Entra ID authentication; email/Teams/OneDrive/SharePoint down; Slack/Confluence/GitHub/AWS SSO blocked → near-total work stoppage. Time: 15–60 minutes from outage start.		
Time:	15–60 minutes from outage start.	Severity Level:	S
Impact			Customer & operations impact (no tickets, invoices, deployments; dev halted; ops cannot process payments/contracts).

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Time:	Same-day (within 1 business day).	Severity Level:	Severe (S)
Time:		Severity Level:	
Time:		Severity Level:	
Time:		Severity Level:	
Time:		Severity Level:	
Time:		Severity Level:	
Time:		Severity Level:	

Dependencies

Upstream Dependencies

System/Process	Description of Dependency
Microsoft 365 Cloud Infrastructure	Microsoft's global Azure AD / Entra ID authentication service. Complete dependency on Microsoft's operational excellence and uptime.
Internet Connectivity	Employees' home internet connections must be functional. ISP outages prevent access even if Microsoft 365 is healthy.
DNS Services	Domain name resolution for login.microsoftonline.com and related endpoints. DNS failures prevent authentication.
Employee Mobile Devices	Microsoft Authenticator app runs on personal phones. Lost/broken phones or depleted batteries prevent MFA completion.
Microsoft Authenticator App	App must be functional and not corrupted. App bugs, OS incompatibilities, or data loss prevent authentication.

Mobile Network Connectivity	Push notifications for MFA require cellular data or WiFi. Network issues delay or prevent MFA prompts.
EcoMetricx Domain Registration	"ecometricx.com" domain must be active and properly configured in Microsoft 365 tenant. Domain expiration = authentication failure.

Downstream Dependencies

System/Process	Description of Dependency
Email Communication (Outlook)	Primary business communication channel. Cannot send/receive emails = cannot communicate with customers, partners, vendors.
Microsoft Teams	Real-time collaboration platform. Cannot join meetings, chat, screen share, or coordinate projects.
OneDrive File Storage	Cloud storage for all work documents. Cannot access files, presentations, spreadsheets, code snippets.
SharePoint	Document management and team sites. Cannot access shared resources, project documentation, templates.
Slack	Team communication authenticated via work email. Cannot access primary IT support channel(s) or team coordination.
Atlassian Confluence	Knowledge base authenticated via work email. Cannot access documentation, wikis, procedures, project plans.
GitHub	Source code management tied to work email. Cannot commit code, review PRs, or collaborate on development.
AWS Console Access	Cloud infrastructure management requires work email authentication. Cannot manage resources, deploy code, or troubleshoot.
Customer Support Operations	Cannot read support tickets, respond to inquiries, or provide service. Customer satisfaction plummets.
Software Development	Cannot access repositories, documentation, or coordinate development. All development work halted.

Project Management	Cannot access project boards, timelines, or task lists. Cannot coordinate work or track progress.
Business Operations	Cannot process invoices, contracts, payments, or conduct any administrative functions.
IT Support Services	Primary support channel (Slack) inaccessible. No way for employees to contact IT Help or DevOps team.
Incident Response Capability	Cannot coordinate emergency response during production incidents. No communication or access to systems.

Recovery Time Objective

RTO (minimum comms) **1 hour** via personal channels; RTO (baseline ops) **≤8 hours** via Workspace trial; RPO **0 hours** (availability focus).

Work-around procedures

Workaround name	Personal Device Communication Network
Description	Emergency use of personal communication channels: WhatsApp groups, personal text messages, personal email, Discord, or other consumer apps.
Date last tested or used	N/A
Hardware Required	Personal smartphones, personal email accounts, consumer messaging apps
Additional personnel required	None - existing team pivots to personal channels
Additional Supplies Required	Emergency contact list with personal phone numbers/emails
How long can it be used?	Days if necessary, but extremely inefficient and unprofessional. Cannot access work files, systems, or customer data.
How long will it take to implement?	30-60 minutes to coordinate and establish communication channels. Time wasted as people discover they don't have each other's personal contact info.
What % of full production can this alternative provide?	5-10% - Can communicate verbally but cannot access any work files, systems, code, or customer data. Essentially useless for actual work.

Workaround name	Emergency Google Workspace Trial
Description	Rapidly spin up Google Workspace trial accounts with temporary email addresses (e.g., andrei.temp@ecometricx-

	emergency.com). Provides basic email and collaboration but requires complete reconfiguration of all services.
Date last tested or used	Never tested - theoretical measure only
Hardware Required	Credit card for Google Workspace trial, admin access to domain registrar to update MX records
Additional personnel required	IT team to configure, all employees to set up new accounts
Additional Supplies Required	Domain verification access, DNS management credentials
How long can it be used?	14-30 day trial period, then requires paid subscription
How long will it take to implement?	4-8 hours minimum to set up domain, create accounts, configure DNS, onboard employees. Full migration of data could take days.
What % of full production can this alternative provide?	30-40% - Provides email and basic collaboration but all integrations (Slack, Confluence, GitHub, AWS) still broken and require reconfiguration. Historical data not accessible.