

IT Infrastructure Project Report StarTech Business College (STBC)

Prepared For:
StarTech Business College (STBC)

Prepared By:
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Executive Summary

This report outlines a comprehensive IT infrastructure proposal for the new StarTech Business College (STBC) campus located in the Sydney CBD. The project's objective is to design and implement a fully functional, secure, and scalable technology environment to support administrative staff, teachers, and up to 60 students. The proposed solution includes a robust on-premises server, a structured network, modern end-user computing devices, and a cloud-based productivity suite with Microsoft 365.

The plan details all required hardware, software, and services, with a complete cost analysis. The total initial investment is estimated at \$160,995.72 AUD, which includes a 10% contingency. The ongoing monthly operational cost is projected to be approximately \$570.00 AUD. This proposal provides a turnkey solution that aligns with STBC's immediate operational needs and future growth potential.

1. Project Scope and Objective

The primary objective is to establish a complete IT infrastructure for STBC's new campus. The college has two classrooms, a reception area, an admin office, and a teacher's room. The scope of this project includes:

IT Infrastructure Plan: Researching, selecting, and costing all necessary hardware, software, and services.

Network Design: Planning the physical and logical network, including cabling, server placement, and wireless coverage.

Server Configuration: Setting up an on-premises domain controller with Active Directory, including OUs, security groups, user accounts, and shared folders as per the provided specifications.

Microsoft 365 Setup: Configuring M365 for user accounts, shared mailboxes, distribution groups, and implementing Multi-Factor Authentication (MFA).

User Provisioning: Creating accounts for all specified staff members and preparing for future student accounts.

Financial Summary: Providing a detailed cost breakdown, including initial setup fees, consultation fees, and ongoing monthly costs.

2. Plan of Products, Services, and Cost Details

A detailed breakdown of all required products and services has been compiled. The following table summarizes the estimated costs, including supplier links for each hardware item. All prices are in Australian Dollars (AUD) and are based on market research conducted in November 2025. Please note that prices and availability are subject to change.

Category	Provider/Brand	Item/Model	Qty	Est. Unit Cost	Total Cost
Server Infrastructure	HPE	ProLiant ML350 Gen11 Server	1	\$8,500.00	\$8,500.00
	Microsoft	Windows Server 2022 Standard (16-core)	1	\$1,500.00	\$1,500.00
	StarTech / 4Cabling	22U Server Rack Cabinet	1	\$600.00	\$600.00
	APC / Scorptec	Smart-UPS 1500VA	1	\$950.00	\$950.00
Networking	Aussie Broadband	Business NBN 100/40 Plan (Annual)	1	\$1,440.00	\$1,440.00
	Cisco / Amazon AU	RV340 Router/Firewall	1	\$750.00	\$750.00
	Ubiquiti / 4Cabling	UniFi Switch 48 PoE	2	\$1,250.00	\$2,500.00
	Ubiquiti / Mwave	U6+ WiFi Access Points	3	\$250.00	\$750.00
	Local Installer	Professional Cabling & Patch Panel	1	\$8,000.00	\$8,000.00
End-User Computing	Dell	Staff Desktops (OptiPlex)	8	\$1,400.00	\$11,200.00
	Lenovo	Classroom Desktops (ThinkCentre)	60	\$1,200.00	\$72,000.00
	Dell / Amazon AU	24" Business Monitors (P2425)	70	\$380.00	\$26,600.00
Peripherals	Brother/Officeworks	B&W Laser Printers (HL-L2460DW)	5	\$280.00	\$1,400.00
	Brother/Officeworks	Color Multifunction Printer (MFC-L3780CDW)	1	\$650.00	\$650.00
	Evolis/Officeworks	ID Card Printer (Zenius)	1	\$2,000.00	\$2,000.00

Category	Provider/Brand	Item/Model	Qty	Est. Unit Cost	Total Cost
	Logitech	C920 Webcam	1	\$120.00	\$120.00
	Yealink / Telrex	VoIP Phones (T31P)	8	\$100.00	\$800.00
	Hikvision	CCTV System (6-camera Kit)	1	\$1,200.00	\$1,200.00
Software & Licensing	Microsoft	Microsoft 365 Business Standard (Annual)	8	\$224.40	\$1,795.20
Services & Fees	VoIP Provider	VoIP Setup & Configuration	1	\$500.00	\$500.00
	Mizanur Rahman	Consultation Fee	1	\$5,000.00	\$5,000.00
Subtotal				\$146,405.20	
Contingency (10%)				\$14,590.52	
Total Initial Cost				\$160,995.72	

Monthly Ongoing Costs

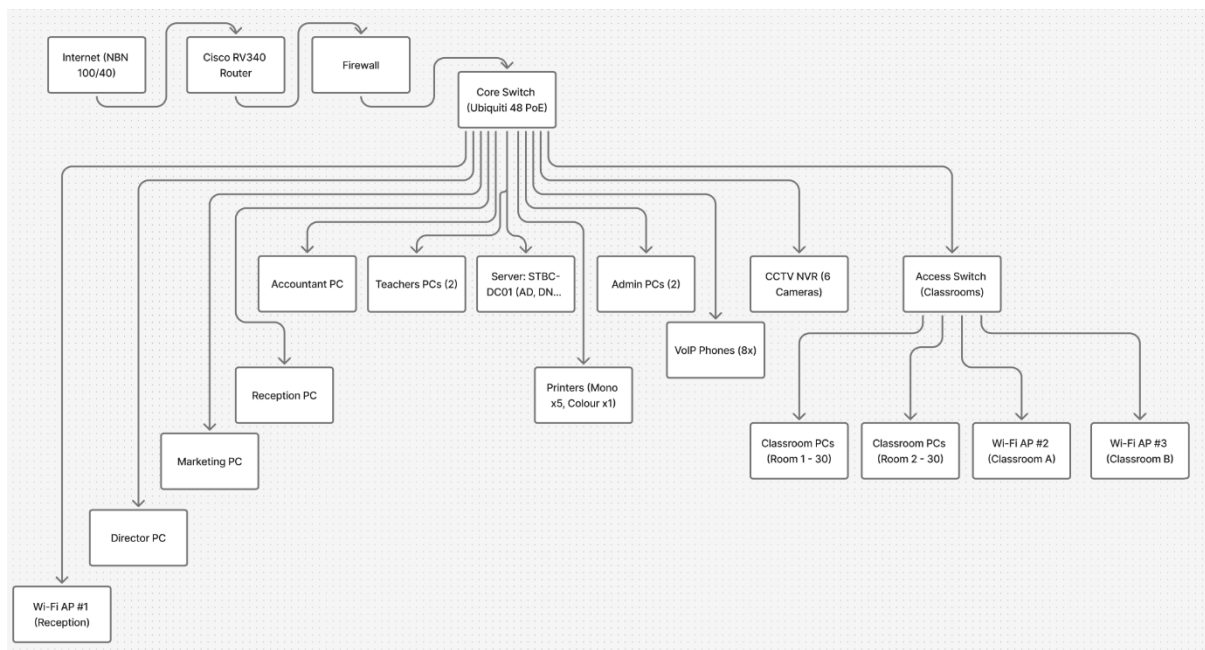
Service	Estimated Monthly Cost
Internet (NBN 100/40)	\$120.00
Microsoft 365 Licensing	\$149.60
VoIP Phone Service	\$200.00 (8 users)
Cloud Backup Solution	\$100.00
Total Monthly Cost	\$569.60

3. Network Documentation

Logical Network Topology

The proposed network for STBC is based on an extended star topology. This model features a central core switch that connects to the main server, router, and other key devices. A secondary access switch is used to connect the high density of computers in the classrooms, preventing traffic bottlenecks and simplifying management.

This design provides an excellent balance of performance, scalability, and resilience. It allows for easy troubleshooting and expansion as the college grows.



Network Design Summary

Server Placement: The main server (STBC-DC01), core network switch, router, and NVR for CCTV will be housed in a secure 22U server rack located in the Admin Office.

Cabling: A professional contractor will install structured Ethernet (Cat6a) cabling from the server rack to wall-mounted data ports in all required locations: Reception, Admin, Teachers' Room, Marketing, Accountant, Director's office, and both classrooms. This includes drops for all PCs, printers, phones, and Wi-Fi Access Points.

Wi-Fi Access Points: Three Ubiquiti U6+ access points will be strategically placed to provide full wireless coverage: one in the reception area, and one in each of the two classrooms.

CCTV: The 6-camera CCTV system will be connected to a Network Video Recorder (NVR) in the server rack, providing centralized security monitoring.

4. Server and Microsoft 365 Configuration

Server Configuration Overview

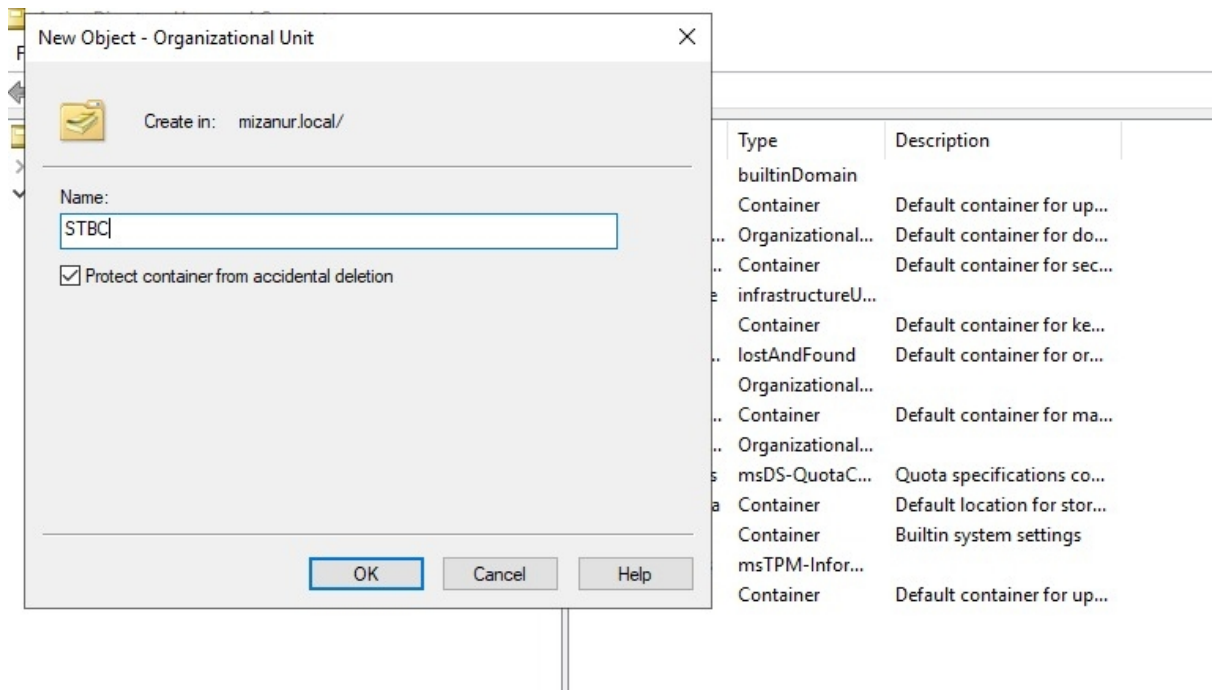
The on-premises server will be configured as a Domain Controller with the following specifications:

Domain Name: STBC.LOCAL

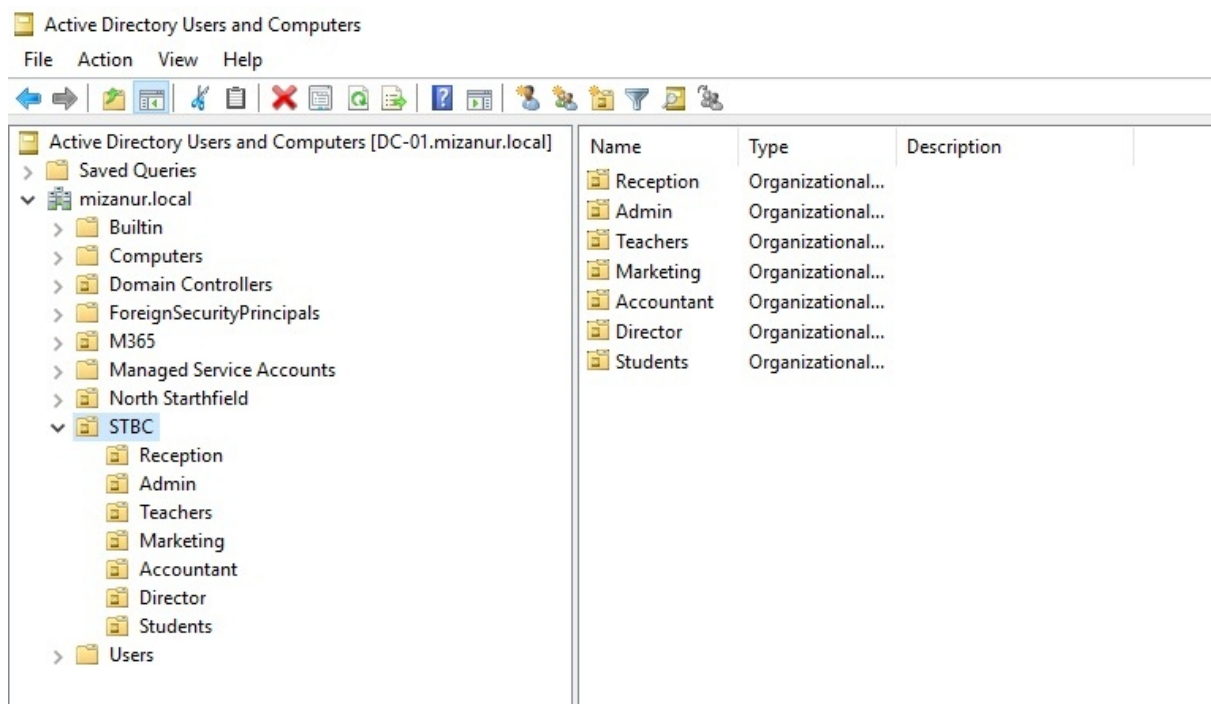
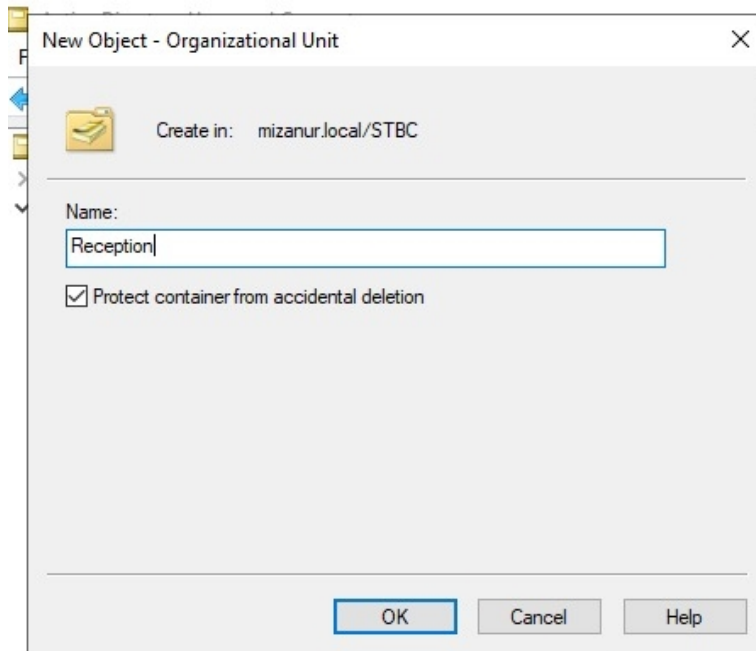
Server Name: STBC-DC01

Active Directory Structure:

Main OU: STBC



Departmental OUs: An Organizational Unit will be created for each department: Reception, Admin, Teachers, Marketing, Accountant, Director, and Students.



Security Groups: Each OU will have a corresponding security group (e.g., Reception-Grp, Admin-Grp) to manage permissions.

Active Directory Users and Computers

File Action View Help

The screenshot shows the Active Directory Users and Computers console for the domain DC-01.mizanur.local. The left pane displays a tree view with the following structure:

- Active Directory Users and Computers [DC-01.mizanur.local]
 - Saved Queries
 - mizanur.local
 - Builtin
 - Computers
 - Domain Controllers
 - ForeignSecurityPrincipals
 - M365
 - Managed Service Accounts
 - North Starthfield
 - STBC
 - Reception
 - Admin
 - Teachers
 - Marketing
 - Accountant
 - Director
 - Students
 - Users

The right pane shows a list of objects with the following columns: Name, Type, and Description.

Name	Type	Description
Admin-Grp	Security Group...	

ncipals

accounts

Ratan Khan Properties

Remote control	Remote Desktop Services Profile	COM+			
General	Address	Account	Profile	Telephones	Organization
Member Of	Dial-in	Environment	Sessions		

Member of:

Name	Active Directory Domain Services Folder
Accountant-Grp	mizanur.local/STBC/Accountant
Admin-Grp	mizanur.local/STBC/Admin
Director-Grp	mizanur.local/STBC/Director
Domain Users	mizanur.local/Users
Marketing-Grp	mizanur.local/STBC/Marketing
Reception-Grp	mizanur.local/STBC/Reception
Students-Grp	mizanur.local/STBC/Students
Teachers-Grp	mizanur.local/STBC/Teachers

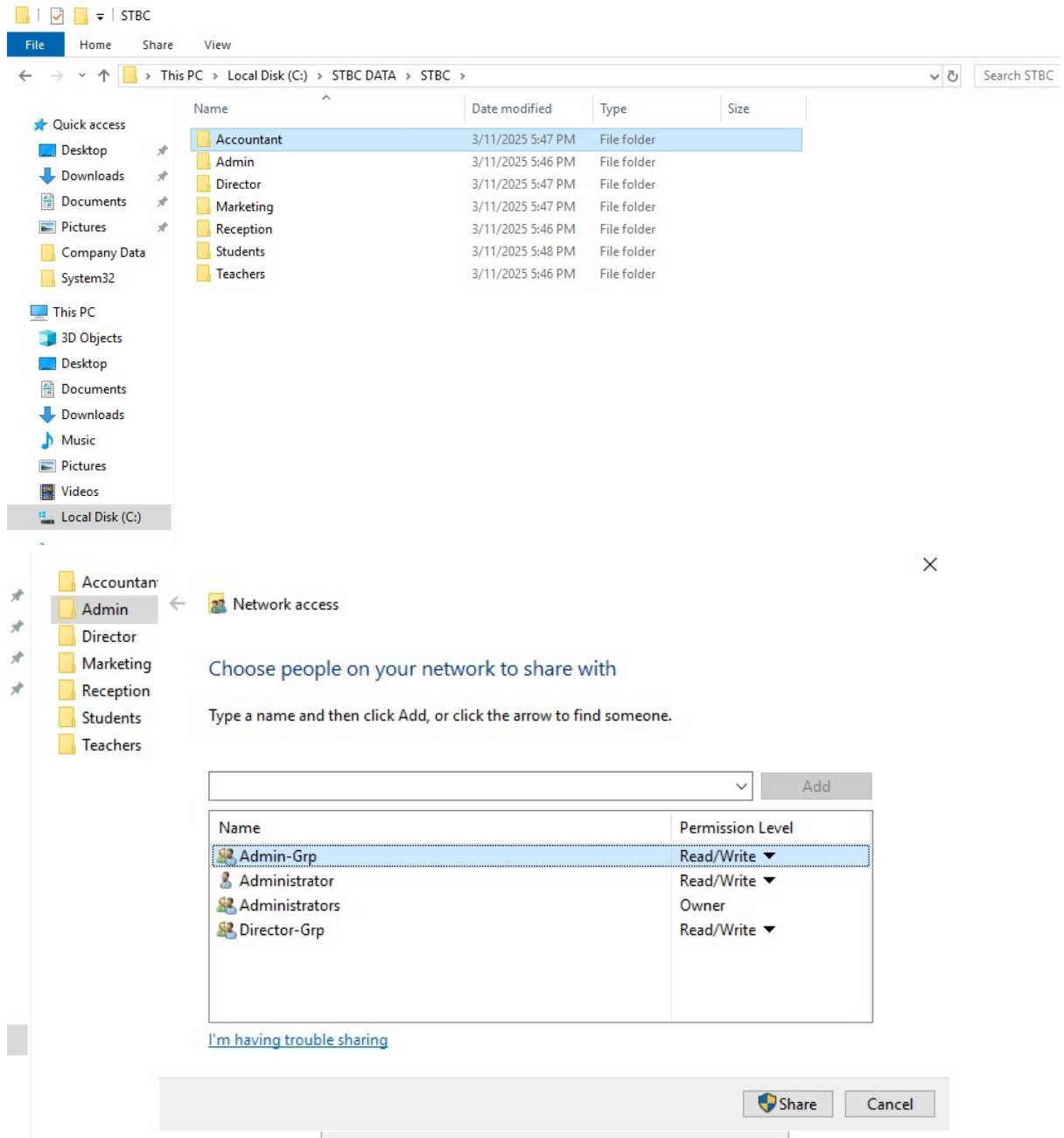
Add... Remove

Primary group: Domain Users

Set Primary Group There is no need to change Primary group unless you have Macintosh clients or POSIX-compliant applications.

OK Cancel Apply Help

Folder Sharing: Departmental folders will be created on the server's data drive (e.g., C:\STBC_DATA\Reception). Each folder will be shared, and Read/Write permissions will be assigned to the corresponding departmental security group. The Director-Grp will have full access to all departmental folders.



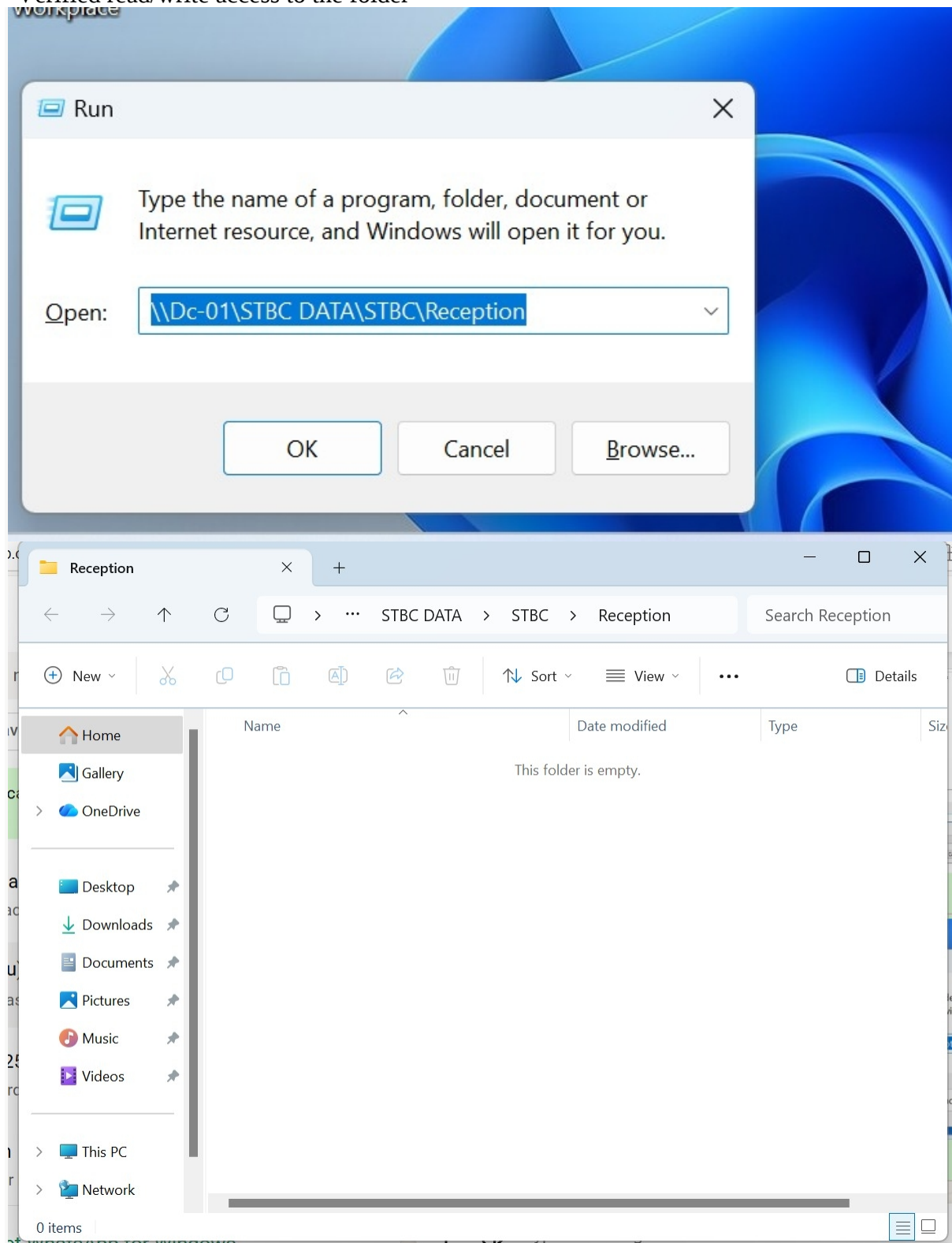
Verify User Login and Shared Folder Access

Purpose: Confirm that domain users can successfully log in and access their assigned departmental resources.

What was done:

- Logged into the domain-joined client PC using a staff member's credentials (e.g., STBC\Rina.S)

- Navigated to the departmental shared folder using the UNC path (e.g., [\\STBC-DC01\Reception](#))
- Verified read/write access to the folder



Verify Access Control - Attempt to Access Other Departmental Folders

Purpose: Confirm that users are restricted to their own departmental resources and cannot access folders belonging to other departments.

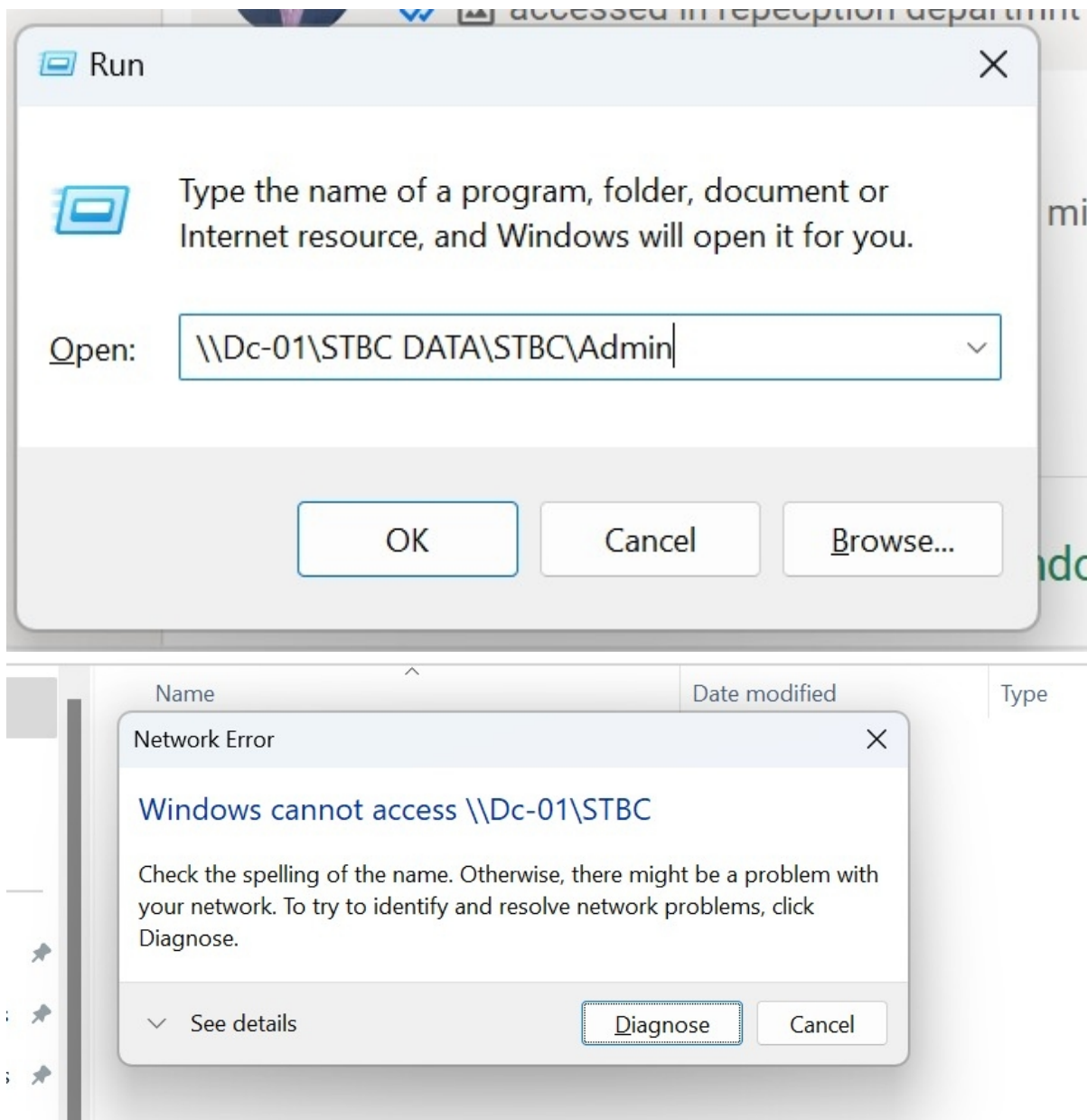
What was tested:

While logged in as a reception user (e.g., Rina Smith)

Attempted to access the Admin folder: `\\DC-01\STBC DATA\STBC\Admin`

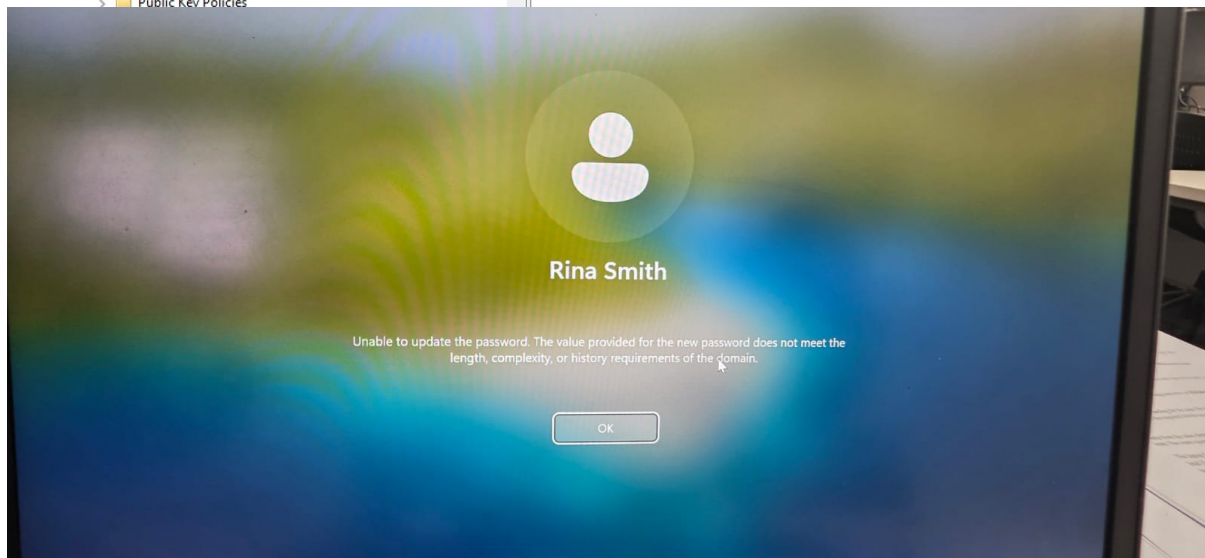
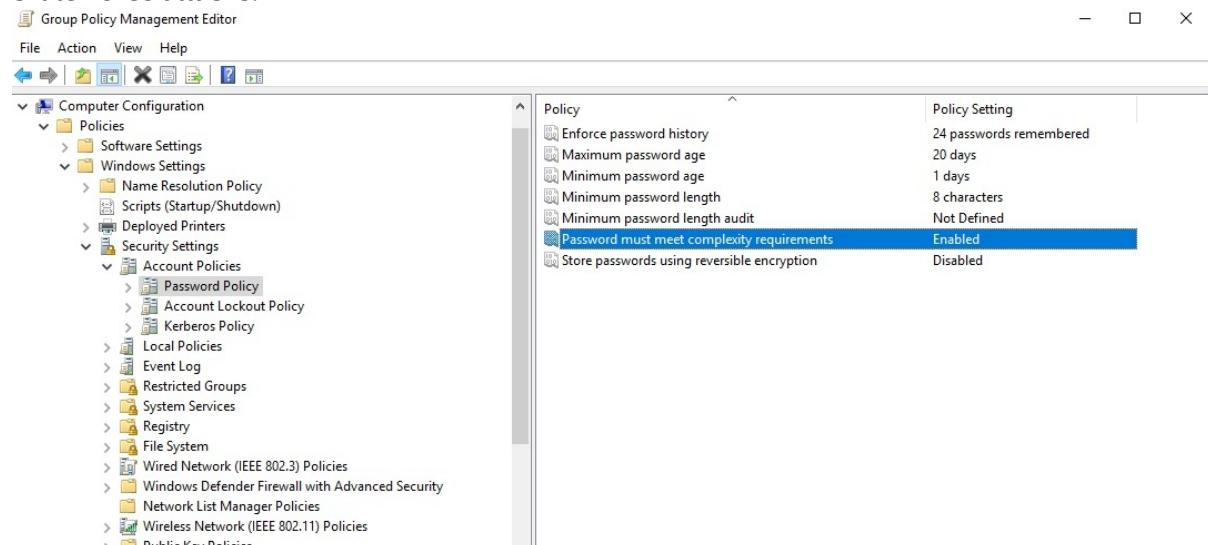
Result: Access Denied

Outcome: This confirms that security group permissions are working correctly - users can only access their assigned departmental folders, ensuring data privacy and security.



Configure Group Policy for Password and Account Lockout

Purpose: Enhance security by enforcing strong password requirements and protecting against brute-force attacks.



What was done:

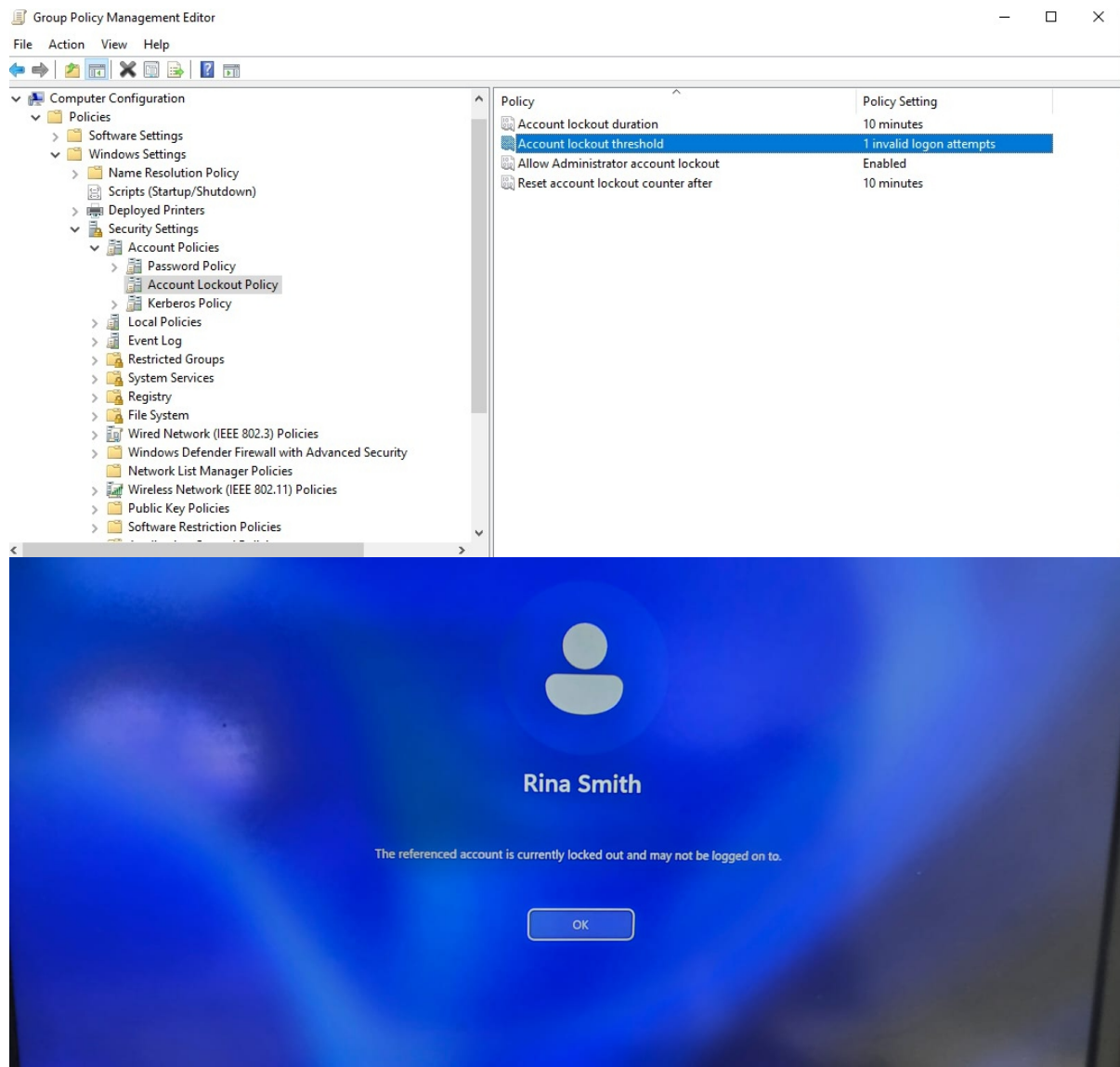
Configured Password Policy via Group Policy Management:

- Minimum password length: 8 characters
- Password complexity: Enabled
- Maximum password age: 20 days
- Password history: 24 passwords remembered

Configured Account Lockout Policy:

- Lockout threshold: 3 invalid attempts
- Lockout duration: 10 minutes
- Reset counter after 10 minutes

Outcome: All domain users must create strong passwords and accounts are automatically locked after 3 failed login attempts, preventing unauthorized access.



Microsoft 365 Setup Summary

Domain: A public domain name (e.g., stbc.edu.au) will be registered and linked to the M365 tenant.

User Onboarding: All staff members will be created as users in M365.

Active users > Add multiple users

- Basics
- Licenses
- Finish

Add list of users

Enter up to 249 users. All users are given temporary passwords.

+ Add row — Remove row

First name	Last name	Username	Domain
<input type="text" value="Rina"/>	<input type="text" value="Smith"/>	<input type="text" value="Rina.Sm"/>	@ thinkbrainy.blog
<input type="text" value="First name"/>	<input type="text" value="Last name"/>	<input type="text" value="Username"/>	@ thinkbrainy.blog
<input type="text" value="First name"/>	<input type="text" value="Last name"/>	<input type="text" value="Username"/>	@ thinkbrainy.blog
<input type="text" value="First name"/>	<input type="text" value="Last name"/>	<input type="text" value="Username"/>	@ thinkbrainy.blog
<input type="text" value="First name"/>	<input type="text" value="Last name"/>	<input type="text" value="Username"/>	@ thinkbrainy.blog

I'd like to upload a CSV with user information

[Add a user](#)
[User templates](#)
[Add multiple users](#)
[Multi-factor authentication](#)
[Delete a user](#)
[Refresh](#)
[Reset password](#)
Search active us

Filter set: **Commonly used** ▾ Licenses Sign-in status Domain Location

<input type="checkbox"/> Display name ↑	Username	Licenses	<input type="checkbox"/> Choose columns
<input type="checkbox"/> Amit Sharma	: Amit.S@thinkbrainy.blog	Microsoft 365 Business Premium	
<input type="checkbox"/> Karan Patel	: Karan.P@thinkbrainy.blog	Microsoft 365 Business Premium	
<input type="checkbox"/> Mehak Singh	: Mehak.S@thinkbrainy.blog	Microsoft 365 Business Premium	
<input type="checkbox"/> Mizanur Rahman	: MizanurRahman@ThinkBrainy.onmicrosoft.com	Microsoft 365 Business Premium , Microsoft 365 Business Premium (no Teams)	
<input type="checkbox"/> Mohan Jung	: Mohan.J@thinkbrainy.blog	Microsoft 365 Business Premium	
<input type="checkbox"/> Rabin Williams	: Rabin.W@thinkbrainy.blog	Microsoft 365 Business Premium	
<input type="checkbox"/> Ratan Khan	: Ratan.K@thinkbrainy.blog	Microsoft 365 Business Premium	
<input type="checkbox"/> Rina Smith	: Rina.S@thinkbrainy.blog	Microsoft 365 Business Premium	
<input type="checkbox"/> Ruby Rana	: Ruby.R@thinkbrainy.blog	Microsoft 365 Business Premium	

Shared Mailboxes: Shared mailboxes will be created for Admin (Mehak/Rabin) and Teachers (Amit/Karan).

Outlook Setup: Outlook will be configured on each user's machine, with access to their primary mailbox and any relevant shared mailboxes.

Home > Shared mailboxes

Shared mailboxes

A shared mailbox can be used by a group of people, like a support team, to receive and send email from the same email address. Select a shared mailbox to add or remove members, set up automatic replies, manage aliases, and more.

[Learn more about shared mailboxes](#)




+ Add a shared mailbox Refresh

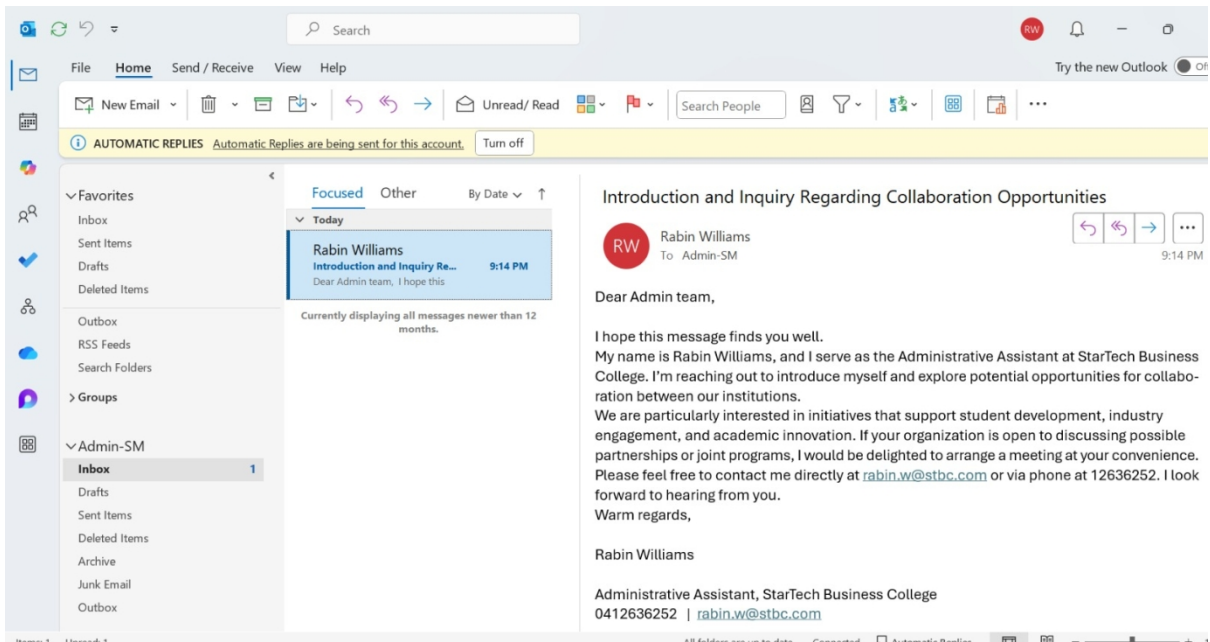
Name	Email
<input type="checkbox"/> Admin-SM	admin-sm@thinkbrainy.blog
<input type="checkbox"/> Teachers-SM	teachers-sm@thinkbrainy.blog

Shared mailbox members

Saved.

+ Add members

- Display name
-  Amit Sharma
Amit.S@thinkbrainy.blog
-  Karan Patel
Karan.P@thinkbrainy.blog
-  Ratan Khan
Ratan.K@thinkbrainy.blog



The screenshot shows the Microsoft Outlook interface. The left sidebar displays the navigation pane with folders like Favorites, Admin-SM, and Inbox. The main pane shows an email titled "Introduction and Inquiry Regarding Collaboration Opportunities" from Rabin Williams to Admin-SM, dated 9:14 PM. The email content includes a greeting, an introduction of Rabin Williams as an Administrative Assistant at StarTech Business College, and a request for collaboration opportunities. The email concludes with warm regards and contact information for Rabin Williams.

Distribution Groups: Distribution groups will be configured for All Staff and Students.

Group type
 Basics
 Owners
 Members
 Settings
 Finish

Edit settings

Distribution group
Sends email to all members of the list.

Group email address * Domains

Communication
 Allow people outside of my organization to send email to this Distribution group

Joining the group
 Open
Anyone can join this group without owner approval.
 Closed
Only group owners can add members. All requests to join will be automatically declined.
 Owner approval
Anyone can request to join this group and owners must approve the request.

Leaving the group
 Open
Anyone can leave this group without group owner approval.
 Closed
Only group owners can remove members. All requests to leave will be automatically declined.

After the group is created, you'll be able to edit settings to specify if external senders can email the group and whether

Groups

Microsoft 365 Distribution list Dynamic distribution list Mail-enabled security

[Add a group](#) [Export](#) [Refresh](#) [Change group type](#) [Edit name and description](#) [Edit email address](#)

Group name ↑	Group email	Sync status	Created on
Accountant-DL	accountant@thinkbrainy.blog	☰	November 7:56 PM
<input checked="" type="checkbox"/> Admin-DL	admin@thinkbrainy.blog	☰	November 7:51 PM
Director-DL	director@thinkbrainy.blog	☰	November 7:58 PM
Marketing-DL	marketing@thinkbrainy.blog	☰	November 7:55 PM
Reception-DL	reception@thinkbrainy.blog	☰	November 7:49 PM
Students-DL	students@thinkbrainy.blog	☰	November 7:59 PM
Teachers-DL	teachers@thinkbrainy.blog	☰	November 7:53 PM

Members

Saved.

[+ Add members](#)

Display name

- Rabin Williams
Rabin.W@thinkbrainy.blog
- Ratan Khan
Ratan.K@thinkbrainy.blog
- Mehak Singh
Mehak.S@thinkbrainy.blog

MFA Configuration: Multi-Factor Authentication will be enforced for all staff accounts to enhance security.

- Home
- Agents
- Favorites
- Entra ID
 - Overview
 - Users
 - Groups
 - Devices
 - Enterprise apps
 - App registrations
 - Roles & admins
 - Delegated admin partners
 - Domain services
 - Conditional Access
 - Multifactor authentication**
 - Identity Secure Score
 - Authentication methods
 - Password reset

Home > **Per-user multifactor authentication**

[Bulk update](#) | [Got feedback?](#)

Users | Service settings

Use multifactor authentication (MFA) to protect your users and data. Our recommended approach to enforce MFA is to use adaptive Conditional Access policies. [Learn more](#)

Before you begin, take a look at the [multifactor authentication deployment guide](#).

Enable MFA Disable MFA Enforce MFA User MFA settings


Status : All **View : Sign-in allowed users**

<input type="checkbox"/>	Name ↑↓	UPN	Status
<input type="checkbox"/>	Amit Sharma	Amit.S@thinkbrainy.blog	enforced
<input type="checkbox"/>	Karan Patel	Karan.P@thinkbrainy.blog	enforced
<input type="checkbox"/>	Mehak Singh	Mehak.S@thinkbrainy.blog	enforced
<input type="checkbox"/>	Mizanur Rahman	MizanurRahman@ThinkBrainy.onmicrosoft.com	enforced
<input type="checkbox"/>	Mohan Jung	Mohan.J@thinkbrainy.blog	enforced
<input type="checkbox"/>	Rabin Williams	Rabin.W@thinkbrainy.blog	enforced
<input type="checkbox"/>	Ratan Khan	Ratan.K@thinkbrainy.blog	enforced
<input type="checkbox"/>	Rina Smith	Rina.S@thinkbrainy.blog	enforced
<input type="checkbox"/>	Ruby Rana	Ruby.R@thinkbrainy.blog	enforced



rabin.w@thinkbrainy.blog

Approve sign in request

 Open your Authenticator app and approve the request. Enter the number if prompted.

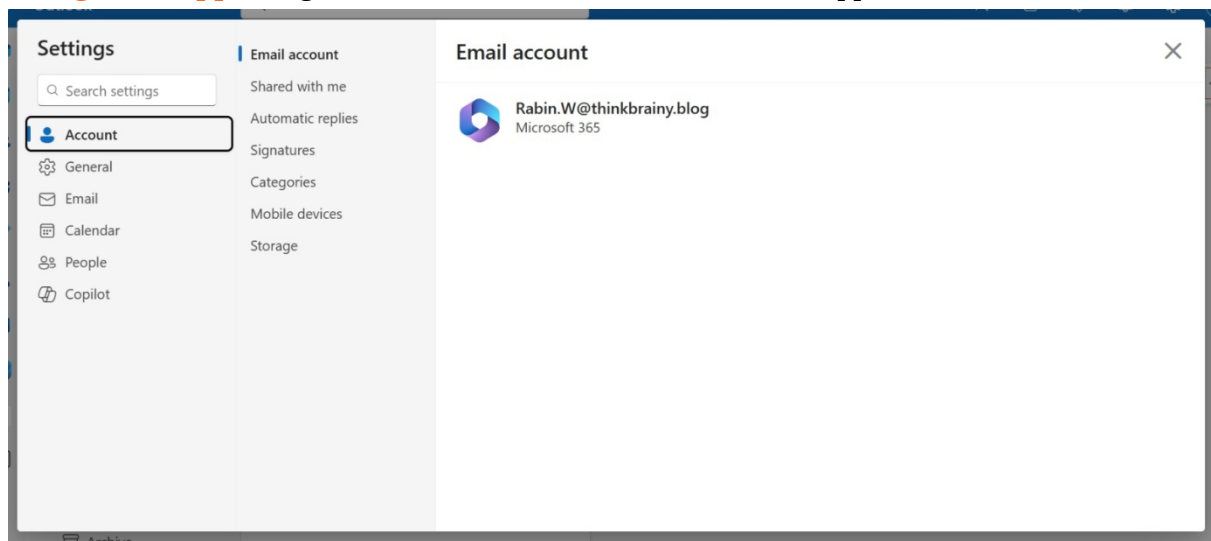
71

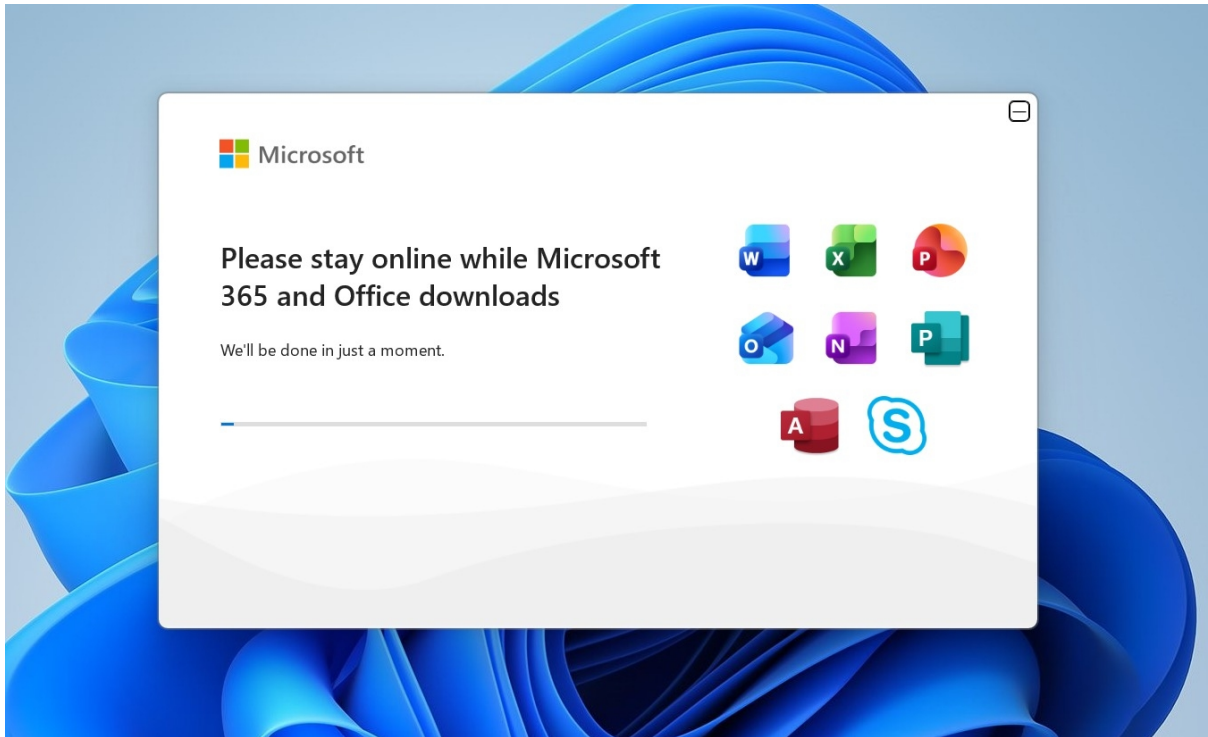
Didn't receive a sign-in request? **Swipe down to refresh** the content in your app.

[I can't use my Microsoft Authenticator app right now](#)

[More information](#)

Installing office apps: Log in as Rabin Williams and install office apps





Setup Signature, Email Forwarding, and Out of Office:

Joined as Rabin Williams and setup his outlook where signature, Email Forwarding, and Out of Office configured.

Settings

Search settings

- Account
 - General
 - Email
 - Calendar
 - People
 - Copilot
- Signatures
- Categories
- Mobile devices
- Storage
- Templates
- Smart suggestions
- Attachments
- Rules
- Conditional formatting
- Sweep
- Junk email
- Quick steps
- Customise actions
- Sync email
- Message handling
- Forwarding**
 - Retention policies
 - S/MIME
 - Groups

Signatures

By default, your new emails and replies...

Create and edit signatures


+ New signature

Rabin Williams

Rabin Williams

Administrative Assistant, StarTech Business College
0412636252 | rabin.w@stbc.com

f @ v t s



Save **Dis**

Forwarding

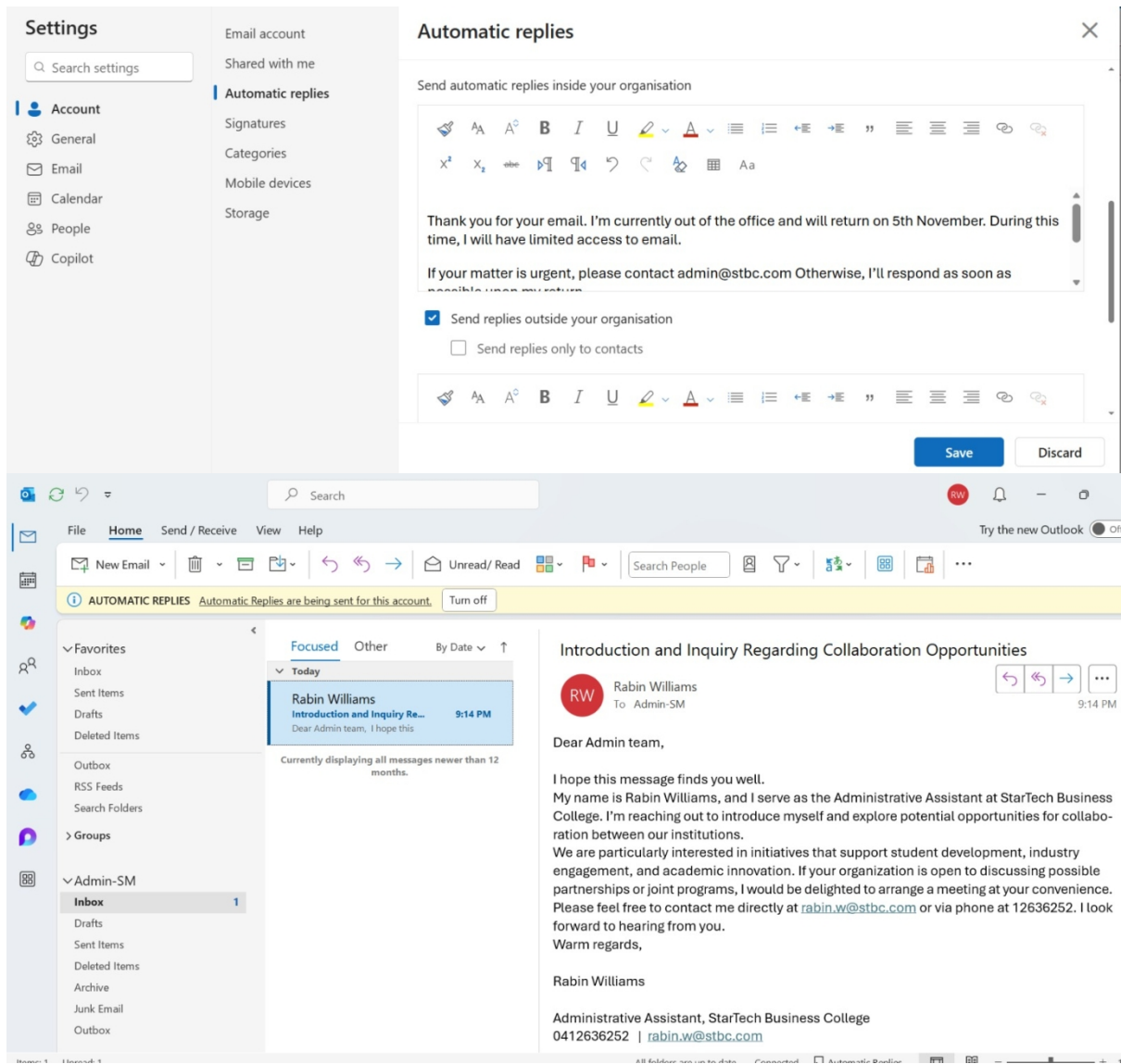
You can forward your email to another account.

Enable forwarding

Forward my email to:

Keep a copy of forwarded messages

Save **Discard**



5. Usernames and Passwords

The following table lists the initial user accounts and a standardized temporary password. All users will be required to change their password upon their first login to ensure account security.

Department	Staff/User	Username	Initial Password
Reception	Rina Smith	Rina.S	Sydney123

Admin	Mehak Singh	Mehak.S	Sydney123

Department	Staff/User	Username	Initial Password

Admin	Rabin Williams	Rabin.W	Sydney123

Teachers	Amit Sharma	Amit.S	Sydney123

Teachers	Karan Patel	Karan.P	Sydney123

Marketing	Mohan Jung	Mohan.J	Sydney123

Accountant	Ruby Rana	Ruby.R	Sydney123

Director	Ratan Khan	Ratan.K	Sydney123

6. Additional Recommendations

Backup Solution: A robust 3-2-1 backup strategy is highly recommended. This involves having 3 copies of your data, on 2 different media types, with 1 copy stored off-site. We recommend a cloud backup solution (e.g., Backblaze B2, Azure Backup) for the off-site copy, with a monthly budget of approximately \$100.

Cybersecurity Measures: Beyond the firewall and MFA, STBC should invest in a reputable endpoint security solution (e.g., SentinelOne, CrowdStrike) for all desktops. Regular security awareness training for staff is also crucial.

Maintenance Costs: A budget for ongoing maintenance, ad-hoc support, and future hardware replacement should be considered. A standard practice is to budget 15-20% of the initial hardware cost annually.

7. Financial and Presentation Summary

Financial Summary

Total Initial Investment: \$160,995.72 AUD (includes hardware, software, setup, consultation, and 10% contingency).

Consultation Fee: \$5,000.00 AUD (included in total).

Total Monthly Ongoing Costs: \$569.60 AUD (Internet, M365, VoIP, Cloud Backup).

Conclusion:

The proposed IT infrastructure for StarTech Business College (STBC) delivers a complete, secure, and scalable technology environment designed to meet both current operational needs and future growth.

With an initial investment of \$160,995.72 AUD and ongoing monthly costs of \$569.60 AUD, the solution provides a modern server system, structured network architecture, reliable end-user devices, and a fully integrated Microsoft 365 ecosystem.

This plan ensures seamless daily operations, enhanced security through strong access controls and MFA, and improved productivity for staff and students. The recommended infrastructure positions STBC to operate efficiently from day one while maintaining the flexibility to expand as the college grows.
