EduNet Sync System - Complete Documentation

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System Overview
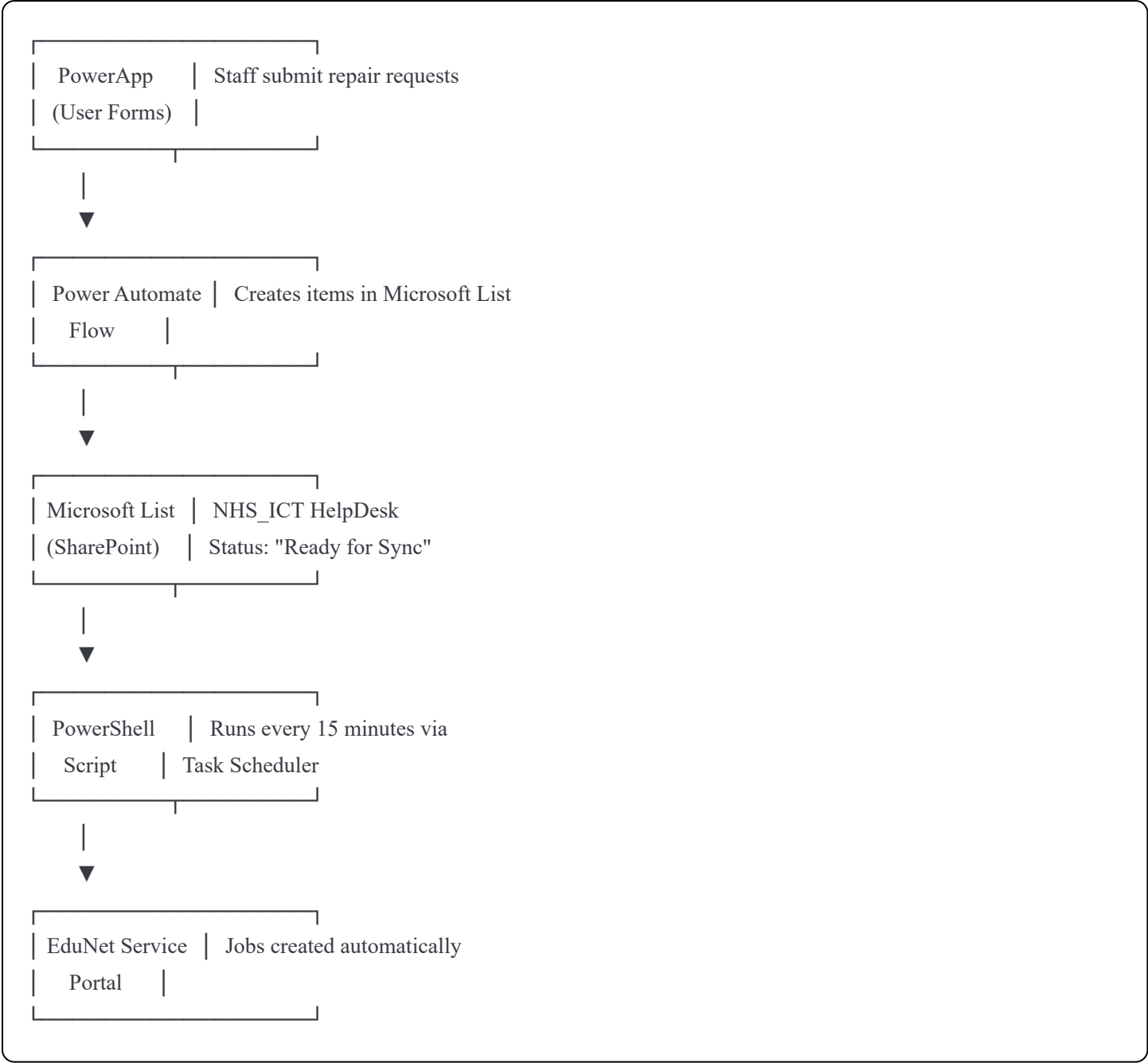
What Does This System Do?

The EduNet Sync System automatically synchronizes device repair jobs from your Microsoft List (NHS_ICT HelpDesk) to the EduNet Service Portal. This eliminates manual data entry and ensures repairs are tracked efficiently.

Key Features

- ✅ **Automatic Synchronization** - Runs every 15 minutes during work hours
- ✅ **No Manual Data Entry** - Jobs automatically created in EduNet
- ✅ **Attachment Upload** - Photos/documents automatically attached
- ✅ **Insurance Notifications** - Automatic emails when insurance payment needed
- ✅ **Error Handling** - Failed items marked for manual review
- ✅ **Service Account** - Runs independently of individual user accounts

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Architecture

System Components

```
┌─────────────┐
│  PowerApp   │   Staff submit repair requests
│ (User Forms)│
└─────────────┘
       │
       ▼
┌─────────────┐
│Power Automate│  Creates items in Microsoft List
│    Flow     │
└─────────────┘
       │
       ▼
┌─────────────┐
│Microsoft List│  NHS_ICT HelpDesk
│ (SharePoint)│   Status: "Ready for Sync"
└─────────────┘
       │
       ▼
┌─────────────┐
│ PowerShell  │   Runs every 15 minutes via
│   Script    │   Task Scheduler
└─────────────┘
       │
       ▼
┌─────────────┐
│EduNet Service│  Jobs created automatically
│   Portal    │
└─────────────┘
```

File Locations

Component	Location
PowerShell Script	C:\EduNetSync\Scripts\EduNet-Sync-Script.ps1
Configuration Files	C:\EduNetSync\Config\
Log Files	C:\EduNetSync\Logs\
Attachments (Temp)	C:\EduNetSync\Attachments\

Credentials Used

Purpose	Account	Storage Location
SharePoint/List Access	ITDesk@nossalhs.vic.edu.au	C:\EduNetSync\Config\SecurePassword.txt

Purpose	Account	Storage Location
Email Notifications	ITDesk@nossalhs.vic.edu.au	C:\EduNetSync\Config\EmailCredential.xml
Task Scheduler	CURRIC\Administrator	Windows Credential Manager
EduNet API	(API Keys in script)	Script configuration section

Initial Setup

What Was Done During Setup

1. Service Account Creation

- **Username:** ITDesk@nossalhs.vic.edu.au

- **License:** Microsoft 365 E3

- **Permissions:**

  - SharePoint site: Edit access

  - Microsoft List: Edit access

  - Exchange: SMTP AUTH enabled

  - MFA: Disabled (required for automated SMTP)

2. Azure AD App Registration (Optional - Not Currently Used)

- **App ID:** 5d20ba78-c3de-4a20-ad3a-abbc6cea5a5e

- **Purpose:** App-Only authentication (fallback method)

- **Note:** Currently using service account credentials instead

3. Power Automate Flows

- **Flow Owner:** ITDesk@nossalhs.vic.edu.au (transferred from original creator)

- **Flow Name:** [Insert your flow name]

- **Purpose:** Creates Microsoft List items from PowerApp submissions

4. SharePoint Permissions

- Service account has **Edit** permissions on:
  - Site: https://nossalhs.sharepoint.com/sites/ITServices

  - List: NHS_ICT HelpDesk

5. Server Setup (Management Server)

- Folder structure created at `C:\EduNetSync\`

- PowerShell script installed

- Credentials securely stored

- Task Scheduler configured

How It Works

Step-by-Step Process

Step 1: User Submits Repair Request

- Staff member opens PowerApp on their device

- Fills in form:
  - Student name and ID

  - Device serial number

  - Job type (Warranty/Insurance/Paid Repair)

  - Issue description

  - Photos (optional)

Step 2: Power Automate Creates List Item

- Flow triggers on form submission

- Creates new item in Microsoft List

- Attaches photos to SharePoint

- Sets status to "Ready for Sync"

Step 3: Script Detects New Item

- PowerShell script runs every 15 minutes

- Connects to SharePoint using service account

- Finds items with status = "Ready for Sync"

Step 4: Job Creation in EduNet

Script performs these actions:

1. **Validates data** - Checks required fields

2. **Maps claim type** - Converts job type to EduNet claim type

3. **Creates job** - Submits to EduNet API

4. **Uploads attachments** - Sends photos to EduNet

5. **Updates List** - Marks as "Success" with EduNet Job ID

Step 5: Insurance Notification (If Applicable)

- If job type = "Insurance"

- Email sent to: ict@nossalhs.vic.edu.au

- Contains: Student details, payment amount required

Data Mapping

Microsoft List Field	EduNet Field	Notes
field_2 (Student Name)	EndUserName	Student's full name
StudentID	EndUserID	Student ID number
field_3 (SN ID)	SerialNumber	Device serial number (required)
field_4 (Suspected Issue)	SuspectedIssue	Issue description (required)
field_5 (Job Type)	ClaimType + JobType	Mapped to claim type ID
Machinemakes	MachineMake	Device manufacturer
Machinemodel	MachineModel	Device model
Attachments	Attachments	Photos/documents

Job Type Mapping

List Value	EduNet Claim Type ID	EduNet Job Type
Warranty	2 (In Warranty)	Warranty
Insurance	3 (Insurance)	Insurance
Paid Repair	1 (Out of Warranty)	Paid Repair

Daily Operations

For IT Staff (Daily Tasks)

Morning Check (Optional)

```powershell
# View yesterday's sync summary
Get-Content C:\EduNetSync\Logs\SyncLog_$(Get-Date -Format 'yyyyMMdd').txt | Select-String "SYNC COMPLETE" -Co
```

When a User Reports Issue

1. Check if item exists in Microsoft List

2. Look at "EdunetSyncStatus" column:
   - **Blank/Ready for Sync** → Wait for next sync (up to 15 min)
   - **Success** → Check "EduNet Job ID" column for job number
   - **Failed** → Check "Status" column for error message

Manual Sync (If Urgent)

```powershell
# Run script immediately
C:\EduNetSync\Scripts\EduNet-Sync-Script.ps1
```

Or via Task Scheduler:

1. Open Task Scheduler

2. Find: "EduNet Sync - Auto Sync to Portal"

3. Right-click → **Run**

For Administrative Staff

Insurance Claims

When you receive an insurance notification email:

1. Note the student name and EduNet Job ID

2. Contact parent via Compass to arrange payment

3. Once payment received:
   - Update "Payment Status" in Microsoft List
   - Or notify EduNet directly

Checking Job Status

1. Open EduNet Service Portal

2. Search by Job ID (e.g., E080086)

3. View job details, status, and notes

Troubleshooting

Common Issues and Solutions

Issue 1: Items Not Syncing

Symptom: Item stays as "Ready for Sync" for more than 30 minutes

Check:

```powershell
# View recent log
Get-Content C:\EduNetSync\Logs\SyncLog_$(Get-Date -Format 'yyyyMMdd').txt -Tail 50
```

Common Causes:

1. **Missing required field** - Check serial number, issue description

2. **Task Scheduler not running** - Verify task is enabled

3. **SharePoint connection failed** - Service account password expired

Solution:

```powershell
# Test SharePoint connection
$cred = Import-Clixml -Path "C:\EduNetSync\Config\EmailCredential.xml"
Connect-PnPOnline -Url "https://nossalhs.sharepoint.com/sites/ITServices" -Credentials $cred
Get-PnPList | Select-Object Title
```

Issue 2: Authentication Failures

Symptom: Logs show "403 Forbidden" or "sign-in name or password does not match"

Solution: Re-create password file

```powershell
# Run as CURRIC\Administrator on the server
Read-Host "Enter ITDesk@nossalhs.vic.edu.au password" -AsSecureString | ConvertFrom-SecureString | Out-File "C:\EduN
```

Issue 3: Email Notifications Not Sending

Symptom: Insurance jobs created but no email sent

Check Email Credential File:

```powershell
```

```
# Verify file exists
Test-Path "C:\EduNetSync\Config\EmailCredential.xml"

# Re-create if needed
Get-Credential | Export-Clixml -Path "C:\EduNetSync\Config\EmailCredential.xml"
# Enter: ITDesk@nossalhs.vic.edu.au and password
```

Verify SMTP Settings:

- Service account must have SMTP AUTH enabled in Exchange Admin Center

- MFA must be disabled on service account

Issue 4: Duplicate Jobs in EduNet

Symptom: Same repair appears twice in EduNet

Prevention: Script checks for existing Job ID before creating new one

If it happens:

1. Contact EduNet support to merge/close duplicate

2. Check why Microsoft List item had blank Job ID field

Issue 5: Attachments Not Uploading

Symptom: Job created but photos missing in EduNet

Check Log for Upload Errors:

```powershell
Get-Content C:\EduNetSync\Logs\SyncLog_$(Get-Date -Format 'yyyyMMdd').txt | Select-String "attachment"
```

Common Causes:

- File size too large (>5MB per file)

- Unsupported file format

- Network timeout

Maintenance

Weekly Tasks

Check Disk Space

```powershell
powershell

# Logs are kept for 30 days then auto-deleted
Get-ChildItem C:\EduNetSync\Logs\ | Measure-Object -Property Length -Sum
```

Review Failed Items

1. Open Microsoft List

2. Filter: EdunetSyncStatus = "Failed"

3. Review error messages

4. Fix issues and change status back to "Ready for Sync"

Monthly Tasks

Review Service Account

- Verify password hasn't expired

- Check mailbox quota (if emails bouncing)

- Review sent emails for insurance notifications

Update Script (If Needed)

1. Backup current script:

```powershell
powershell

Copy-Item "C:\EduNetSync\Scripts\EduNet-Sync-Script.ps1" "C:\EduNetSync\Scripts\EduNet-Sync-Script.ps1.backup_$(Ge
```

2. Deploy new version

3. Test manually before letting Task Scheduler run it

Quarterly Tasks

API Key Rotation (If Required by EduNet)

- Update $EduNetClientId and $EduNetClientSecret in script

- Test connection after updating

Review Logs for Patterns

- Are certain students having repeated issues?

- Are specific device models failing more?

- Is sync timing optimal?

Handover Notes

Critical Information for Future IT Staff

If Service Account Password Changes

   1. Update password in Microsoft 365 Admin Center

   2. Re-create credential files on server:

```powershell
# Run as CURRIC\Administrator
Read-Host "Enter new password" -AsSecureString | ConvertFrom-SecureString | Out-File "C:\EduNetSync\Config\SecurePas

Get-Credential | Export-Clixml -Path "C:\EduNetSync\Config\EmailCredential.xml"
# Enter: ITDesk@nossalhs.vic.edu.au and new password
```

If Server Changes

   1. Copy entire `C:\EduNetSync\` folder to new server

   2. Install PnP PowerShell module:

```powershell
Install-Module -Name SharePointPnPPowerShellOnline -Force
```

   3. Re-create credential files (encrypted per-machine)

   4. Import Task Scheduler task:

- Export from old server: Right-click task → Export

- Import on new server: Task Scheduler → Import Task

If Script Stops Working After Microsoft Update

- PnP PowerShell modules sometimes break after updates

- Solution: Update module

```powershell
Update-Module -Name SharePointPnPPowerShellOnline -Force
```

Contact Information

- **EduNet API Support:** [Insert support contact]

- **EduNet Service Portal:** https://apihub.edunet.com.au/

- **Microsoft List:** https://nossalhs.sharepoint.com/sites/ITServices

Important Accounts

- **Service Account:** ITDesk@nossalhs.vic.edu.au

- **Admin Contact:** ict@nossalhs.vic.edu.au

- **Original Developer Contact:** ST02247@nossalhs.vic.edu.au

What NOT to Do

❌ Don't delete the service account
❌ Don't enable MFA on ITDesk@nossalhs.vic.edu.au
❌ Don't remove SharePoint permissions for service account
❌ Don't disable the Task Scheduler task without notification
❌ Don't delete Power Automate flow that creates List items
❌ Don't modify script without testing on a copy first

Emergency Procedures

If Everything Breaks

1. **Stop automated sync:** Disable Task Scheduler task

2. **Check logs:** Review today's log file for errors

3. **Manual processing:** Create EduNet jobs manually until fixed

4. **Contact:** Reach out to original developer or Microsoft support

If Service Account Locked

1. Unlock in Microsoft 365 Admin Center

2. Reset password

3. Update credential files (see above)

4. Enable Task Scheduler task

If EduNet API Changes

- Check EduNet API Hub for documentation updates

- Update script endpoints if needed

- Test with a single item before bulk processing

Appendix

Script Configuration Reference

Key configuration variables in script:

```powershell
# SharePoint
$SiteUrl = "https://nossalhs.sharepoint.com/sites/ITServices"
$ListName = "NHS_ICT HelpDesk"
$ServiceAccountUsername = "ITDesk@nossalhs.vic.edu.au"

# EduNet API
$EduNetBaseUrl = "https://apihub.edunet.com.au"
$EduNetClientId = "b4e260cb48c7"
$EduNetClientSecret = "db077692d650a39c6beb6b59"

# Email
$AdminEmail = "ict@nossalhs.vic.edu.au"
$SMTPServer = "smtp.office365.com"
```

Task Scheduler Configuration

- **Name:** EduNet Sync - Auto Sync to Portal

- **Run As:** CURRIC\Administrator

- **Trigger:** Daily, every 15 minutes, 8 AM - 5 PM, Mon-Fri

- **Action:** PowerShell.exe with script path

- **Settings:** Run whether user logged on or not

Log File Format

Logs are stored as: `SyncLog_YYYYMMDD.txt`

Example log entry:

```
[2025-11-18 10:27:56] [INFO] Job Type: Insurance
[2025-11-18 10:27:57] [SUCCESS] Job created - ID: E080086
```

Log levels:

- **INFO** - Normal operation

- **SUCCESS** - Action completed successfully

- **WARNING** - Non-critical issue

- **ERROR** - Failed operation

Support Resources

- **PowerShell Documentation:** https://docs.microsoft.com/powershell

- **PnP PowerShell:** https://pnp.github.io/powershell/

- **EduNet API Docs:** https://apihub.edunet.com.au/

- **SharePoint List:** https://nossalhs.sharepoint.com/sites/ITServices

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Document End

For questions or issues, contact IT Services at ict@nossalhs.vic.edu.au