COMP6015 Report Plan - 1500

OS chosen: Microsoft Windows Focus on Windows 11

# Section 1 – Introduction - 200

## Intro to report

* Using Windows 11 OS

## Roles of an OS File System

* Structure
* Primary functions

# Section 2 – Feature description - 600

## Further explanation of features.

### How they are provided

### First iterations?

### Benefits of features

## Feature Timeline

# Section 3 – Comparison - 300

## Comparing reviewed features with competitors alternatives

## Analysis of effectiveness

## What is considered “Better”

# Section 4 – Developer interactions - 200

## Software programming

## Infrastructure

# Section 5 – Conclusion - 200

## Personal viewpoint on better features

## Recommendations for improvement to reviewed OS

# Section 6 – References

# File System

ReFS (Resilient File System) for Windows 11

* Being introduced to Windows 11 after usage in Windows Servers
* Replacing NTFS (New Technology File System) to an extent
  + NTFS still used simultaneously for compatibility reasons
  + ReFS unable to perform certain actions aka boot drive
* Used to assist with larger amounts of data
  + Increased Efficiency
  + Scalability

## Core Features

TPM 2.0

### Data integrity (Integrity Streams)

### Block Cloning

### Mirror-Accelerated Parity

# Developer interactions

* With the prevalence of cloud storage mediums,

Useful Links:

<https://learn.microsoft.com/en-us/windows-server/storage/refs/refs-overview>

<https://learn.microsoft.com/en-us/windows-server/storage/refs/block-cloning>

<https://learn.microsoft.com/en-us/windows-server/storage/refs/mirror-accelerated-parity>

<https://learn.microsoft.com/en-us/windows-server/administration/windows-commands/refsutil>

<https://blog.foldersecurityviewer.com/overview-resilient-file-system-refs/#:~:text=An%20outstanding%20feature%20of%20ReFS,without%20compromising%20the%20volume%20availability>.

<https://www.google.com/search?q=refs+windows+11&oq=refs+windows+11&aqs=edge..69i57j0i512l2j0i22i30l5j69i60.3719j0j1&sourceid=chrome&ie=UTF-8>

<https://www.google.com/search?q=ntfs&oq=ntfs&aqs=edge.0.69i59j0i512l7j69i65.566j0j1&sourceid=chrome&ie=UTF-8>

[How Windows uses the TPM | Microsoft Learn](https://learn.microsoft.com/en-us/windows/security/information-protection/tpm/how-windows-uses-the-tpm?source=recommendations)

[Trusted Platform Module (TPM) fundamentals | Microsoft Learn](https://learn.microsoft.com/en-us/windows/security/information-protection/tpm/tpm-fundamentals)

[Secure Boot and Trusted Boot | Microsoft Learn](https://learn.microsoft.com/en-us/windows/security/trusted-boot)

[Windows 11 Specs and System Requirements | Microsoft](https://www.microsoft.com/en-us/windows/windows-11-specifications)