The Managed Municipality

DIGITAL TRANSFORMATION REPORT 2021

Submission Supporting Material for MMP Intake 3

TOWNSHIP OF NAIRN AND HYMAN

PREPARED FOR:
Township of Nairn and Hyman
Nairn Centre, ON

PREPARED BY:
The Managed Municipality Consulting Group
Sudbury, ON

The **Managed Municipality**
1894 Lasalle Blvd.
Sudbury, ON, **P3A-2A4**

(705) **222-4TMM**
info@**TheManagedMunicipality**.com
www.**TheManagedMunicipality**.com

A proud member of the **EncompassIT** family.

The Managed Municipality

October 17th, 2021

Township of Nairn Hyman
64 McIntyre Street
Nairn Centre, ON
P0M 2L0

As you are aware, the Province is moving rapidly toward a 'digital by default' standard for municipal data and, like many other rural municipalities, Nairn and Hyman needs an action plan to transition. Implementing digital record management will improve staff efficiency, bring consistency to municipal processes, increase security and backup capabilities, make appropriate municipal data available to the public easily, and save significant space.

Enclosed please find our review of the municipal office's existing IT structures, provided as an initial step toward the implementation of a full digital record management system. The changes proposed in the following pages include – where possible – a conservative calculation of savings generated and include a rough budget figure for planning purposes along with a timeline that is typical for implementation projects of this nature.

We would anticipate that staff and/or Council may have questions regarding the enclosures or may wish assistance with preparing a funding application through the current Municipal Modernization Program. We would be pleased to participate in any discussion where our assistance is deemed appropriate.

The current MMP program provides for a review report that is fully funded by the Province. Implementation funding (provided separately from the report) is a shared cost, with Nairn and Hyman being required to provide one quarter (25 %) of the total project funded. This presents an unusual opportunity to bring dramatic and effective change to the office's efficiency and ability to move into the future securely – at an affordable cost.

We appreciate the opportunity to work with Nairn and Hyman on this important transition and look forward to speaking with you further at your convenience.

Regards,

Mark Anderson
MMP Project Lead
(705) 562-5477 Direct

Contents

Executive Summary **1**
Background 1
General Recommendations 1
Costing Summary 2
Timeline **2**
Recommendations **4**
Municipal Office Status 4
RFP Proposed Hardware Specifications 4
All technical services listed in the report including but not limited to: *Domain migration, backup configuration, integration, data transfers* 5
RFP Technical Services Needed 5
RFP Estimated Budget Allocation 5
Record Management Software 6
RFP Record Management Software Specifications 7
RFP Estimated Budget Allocation 8
ROI Savings 9
Replace or upgrade existing PCs 10
RFP Hardware and Technical Services Specifications 11
RFP Estimated Budget Allocation 11
Existing Router / Firewall Appliance Status 12
Desktop Scanners 13
RFP Specifications 13
RFP Suggested Budget Allocation 13
Replace / identify / test all network cabling / rackmount 15
RFP Hardware Specifications 15
RFP Technical Services Needed 15
RFP Estimated Budget Allocation 16
Security Software Subscription (5 Year) 17
RFP Software Specifications 17
RFP Estimate Budget Allocation 17
Automate Standard Processes To Match Bylaw / Policy 18
RFP Requirements 20

RFP Estimated Budget Allocation....20
ROI Savings....20
Create Policy / Structure For Remote Work....21
Add Digital Tools for Council and Public Web Accessibility....22
RFP Recommendations....22
RFP Technical Services Needed....22
RFP Estimated Budget Allocation....22
Optional Council Items for Remote Meetings....22
ROI Savings....23
SYSTEM SPECIFICATIONS....24
Melanie's PC....24
Belinda's PC....34

Executive Summary

Background

Rural and northern municipal governments in Ontario are increasingly challenged to meet the expectations of their citizens and the requirements of the upper tiers of government. The provincial government of Ontario has recognized the pressing need for additional resources by providing the *Municipal Modernization Program.* Under this program, rural and northern municipal governments can pursue funding to improve efficiencies and/or reduce costs; this report provides recommendations that, if adopted under the *MMP*, will do both.

The main body of this report is organized on a recommendation-by-recommendation basis – each section including rationale, anticipated budget needed, expected savings / productivity outcomes and additional related reference materials for those who wish a deeper understanding of the issues involved.

An executive summary is included to provide a brief non-technical overview of the municipality's current technology status and goals and to summarize the anticipated budget required to fully implement the recommendations listed. The intention of all proposed items is to position the municipal office to function securely at peak IT efficiency over the next five years. Costing and anticipated savings are structured over a five year window.

Also included are suggested technical requirements for any eventual RFP to be issued for services or products proposed in the following. Additional questions may be addressed to the study's authors; Council presentations are available as desired to further clarify the findings and recommendations presented.

General Recommendations

- Municipal office status – main office
- Add a new file server
- Add new record management solution
- Replace and/or upgrade existing PCs
- Add an enterprise grade firewall
- Install desktop scanners for primary users
- Replace / identify / test all network cabling / rackmount
- Upgrade security software
- Automate standard processes to match bylaw / policy
- Create policy / structure for remote work
- Add digital tools for Council(s)
- Complete security and record management training

Costing Summary

This summary is predicated on a five year window of time (including subscription licensing) after which additional upgrades / licensing / other changes should be considered. All costs and savings shown are based on five years:

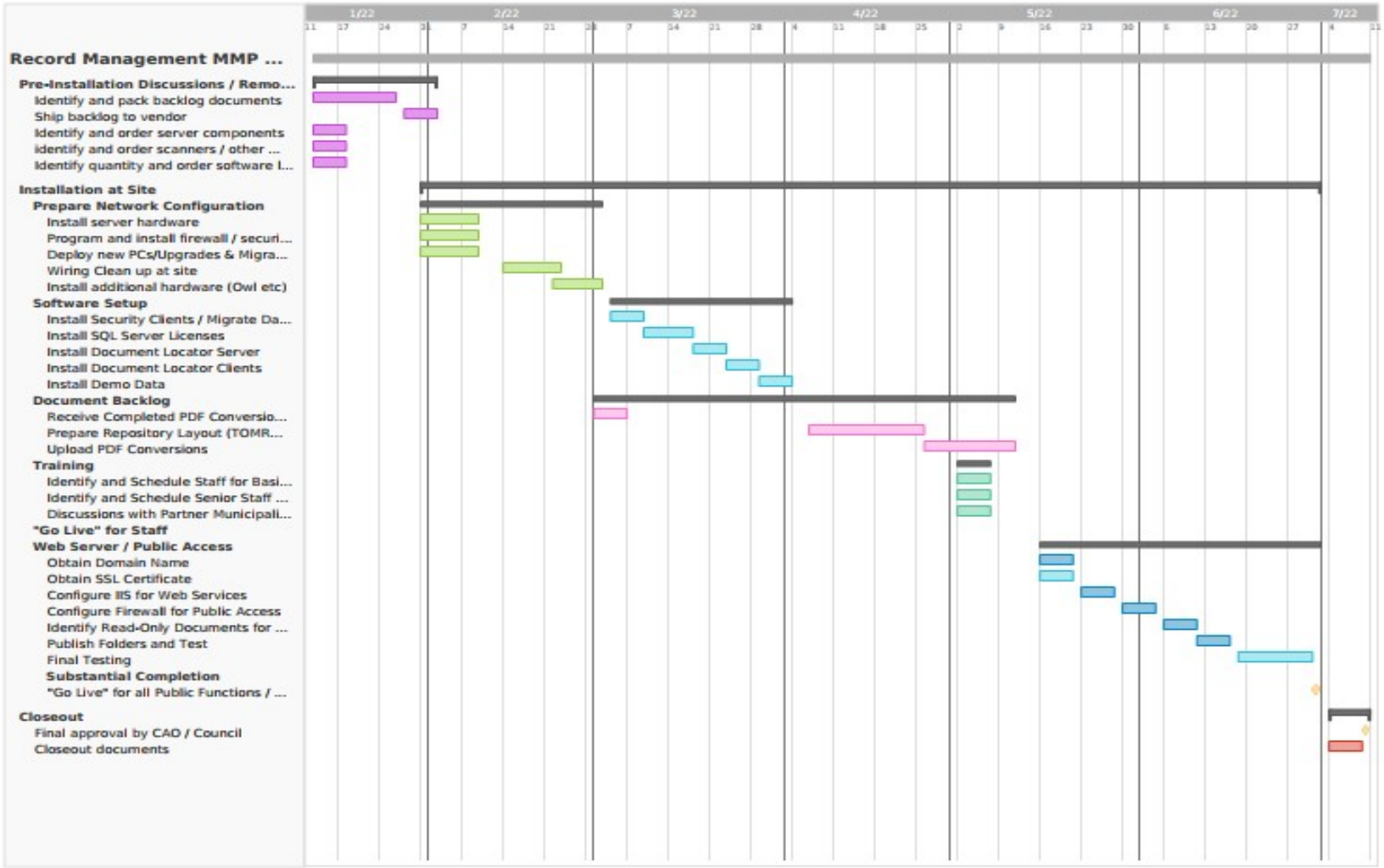
Description	Budget	Savings
Add new file server	$ 17,260.00	
Record Management (use only 1 of the following 3 costs):		
Basic	($ 25,100.00)	
Including Backlog Scans	($ 74,600.00)	
Including Backlog & Custom Programming	$ 80,600.00	$ 202,500.00
Emergency Notebook	$ 2,495.00	$ 2,500.00
Desk Scanners	$ 1,370.00	$ 9,300.00
Cable Cleanup / Rackmount	$ 3,600.00	
Security Software Suite (5 Years)	$ 5,000.00	$ 10,000.00
Standard Templating of All Provided Forms	$ 6,000.00	$ 17,500.00
Council Tools (Owl Pro / Screen / Projector)	$ 3,600.00	
Website Modifications (Supporting Record Management)	$ 5,500.00	$ 8,300.00
Total Outlay (full record backlog w/customization)	**$ 125,425.00**	**$ 250,100.00**

We anticipate a ***net*** savings in time and material over the five year lifespan of the solutions proposed totalling $ 124,675.00

Timeline

The timeline shown on the following page represents a typical record management installation cycle of six months. We have suggested the project to start in early January of 2022 – project timing based on approval to proceed no later than December 31st, 2021. Additional delays in funding approvals, vendor selection or other circumstances beyond our control will move the six month deployment window further into 2022.

In all cases, we understand that full project completion must be accomplished no later than February 2023 in order to comply with MMP funding outlined in Intake 3 and will work within those parameters.


Record Management MMP ...
Pre-Installation Discussions / Remo...
Identify and pack backlog documents
Ship backlog to vendor
Identify and order server components
Identify and order scanners / other ...
Identify quantity and order software l...
Installation at Site
Prepare Network Configuration
Install server hardware
Program and install firewall / securi...
Deploy new PCs/Upgrades & Migra...
Wiring Clean up at site
Install additional hardware (Owl etc)
Software Setup
Install Security Clients / Migrate Da...
Install SQL Server Licenses
Install Document Locator Server
Install Document Locator Clients
Install Demo Data
Document Backlog
Receive Completed PDF Conversio...
Prepare Repository Layout (TOMR...
Upload PDF Conversions
Training
Identify and Schedule Staff for Basi...
Identify and Schedule Senior Staff ...
Discussions with Partner Municipali...
"Go Live" for Staff
Web Server / Public Access
Obtain Domain Name
Obtain SSL Certificate
Configure IIS for Web Services
Configure Firewall for Public Access
Identify Read-Only Documents for ...
Publish Folders and Test
Final Testing
Substantial Completion
"Go Live" for all Public Functions / ...
Closeout
Final approval by CAO / Council
Closeout documents
1/22
2/22
3/22
4/22
5/22
6/22
7/22

Recommendations

Municipal Office Status

The network currently in place at the municipality's office is configured as a 'domain' network using a small server suitable for general tasks but not well suited for the capacity needs and performance needs of a record management solution. We are recommending an upgraded server that would replace the existing unit and would be configured as follows. The municipality's new network server needs to reliably provide:

- Centralized management of connected network endpoints – typically PCs and printers.
- Component redundancy allowing users to continue working through common hardware failures.
- Persistent and common drive 'mapping' across all connected PCs.
- 'Group policy' to ensure all PCs / devices comply with corporate policies and security rules.
- Granular security over files and folders to ensure users only see data to which they are entitled.
- Print queuing to enhance local PC performance and print speed.
- High performance access to common applications and data.
- Full-time availability of all data files – even if users power down their individual PCs/devices.
- A stable platform for deployment of advanced applications – records management etcetera.
- Reasonably large file storage capability – far beyond a single local PCs storage ability.
- Ability to host multiple "virtual" servers if the need arises for additional office functions.

RFP Proposed Hardware Specifications

Lenovo SR650 Rack Server with:
Intel Xeon Processor capable of 8 Cores / 16 Threads
64 Gigabytes of DDR4 Error Correcting Memory
4 x Hot Swappable "SAS" 10K RPM 1.2 Terabyte Hard Disk Drives
Hardware SAS RAID Controller with Intelligent 2Gb Cache
Dual Hot Swappable Power Supply Units
3 Year Lenovo Hardware Warranty Coverage
Windows Server Standard Edition (2019 / 2022) with 2 VM Licenses
10 User Client License Pack
Small floor rack enclosure with Rackmount UPS

All technical services listed in the report including but not limited to:
Domain migration, backup configuration, integration, data transfers

RFP Technical Services Needed

- Install server hardware
- Configure server software and migrate users and user shares
- Connect existing office PCs to the server and ensure reliable operation

RFP Estimated Budget Allocation

Expected new server cost	$13,760.00
Expected new operating system cost	$ 1,500.00
Expected services cost	$2,000.00
Total server project anticipated budget	**$17,260.00**

Record Management Software

The municipal office is currently driven by paper-based processes. Even in cases where digital files have replaced paper, the lack of a central repository for data results in wasted time daily searching for the current version of documents. The existing distribution of municipal data and the reliance on paper files creates multiple challenges / vulnerabilities and will increasingly hamper growth and efficiency efforts if left unaddressed.

AMO reports that the Province of Ontario is pursuing a 'digital by default' as rapidly as possible[1]. The expectation is that even smaller municipal governments will be able to provide virtually any detailed data in digital format responsively – absent record management, this is an unrealistic hope. Despite this, future funding opportunities for all municipalities will depend on the provision and availability of municipal data to both the public and the province with a flexibility and speed that are impossible with paper-based systems.

Moving to 'digital by default' where possible will reduce storage costs, improve efficiency, increase transparency, collaboration, and responsiveness for residents; a record management system also has the 'green' benefit of reducing waste along with paper and toner consumption and cost.

Identified document-related issues at the office include the following:

- Significant time lost searching for the location of current versions of documents.
- Significant space dedicated to archival file storage.
- No 'backup' copies exist of many physical documents – single copies are vulnerable to loss in multiple ways – fire, theft, accidental destruction, misfiling.
- Difficulty fully sharing public-access documentation – something that is increasingly desirable/demanded via website access.
- Inconsistency of processes with little or no audit-trail.
- Inability to rapidly respond to MFIPPA requests or subpoena/discovery demands – especially as regards email communication.
- Inability to work remotely with broad access to paper files stored at the municipal office – increasingly an issue in the Covid / remote-work era.
- Inability to quickly search both title and full-text content of broad document types.
- Inability to centrally secure confidential documentation with audit trail for all access, alterations and attempted deletions.
- Limited ability to collaborate effectively on project documentation across all municipal departments and sites.
- Inability to rapidly assemble, approve and distribute meeting packages for Council members – this is a significant consumer of staff time monthly given the need for regular and special meetings / agendas / reference documents.
- No enforced consistency in document naming, storage location or file type.

[1] https://www.amo.on.ca/AMO-PDFs/Reports/2017/OnMuni-Online-Towards-Digital-Transformation-2017.aspx

RFP Record Management Software Specifications

Given the limited speed of internet access at the municipal offices and no immediate prospect of upgraded speeds, we are recommending an on-site solution rather than a cloud-based solution. The ideal on-site solution for the municipal office would have the following minimum capabilities and features:

- Rapidly search document titles, full text contents and other metadata of common municipal document types including but not limited to: Word, Excel, PowerPoint, Adobe Acrobat / PDF, Rich Text, Plain Text.
- Store and search all inbound and outbound municipal email.
- Securely publish documents to a website including Agendas, Minutes, Council Packages, Bylaws and other common municipal data types.
- Conform fully with all existing and pending Canadian regulations for data storage and privacy.
- Support for the adoption of the “TOMRMS” (The Ontario Municipal Record Management System) filing structure
- Integrate with an existing ‘Active Directory’ network.
- Common controls accessible directly through existing Windows tools – Word, Excel, PowerPoint, Outlook and File Explorer.
- Support for customized automated workflows for common municipal functions – applications, complaints, permits, purchases etcetera, including approval steps and publication steps.
- Associate customized metadata with documents stored.
- Retention and destruction rules by folder or individual document.
- Versioning of common documents.
- Simply reported audit trail for all stored documents.
- Internet accessibility for public documents with anonymous login / no login.
- Optional internet accessibility for non-public documents with secured login by user.
- Store large backlog of searchable pdf documents (100,000 +).
- Bulk uploads of existing paper-based documents.
- Custom integration with other municipal software tools is desirable.

RFP Estimated Budget Allocation

There is a broad range of software tools exist that satisfy the above requirements, making highly precise budget allocation difficult. We have opted to cost out a solution satisfying the above feature and function requirements from a common record-management vendor, Columbiasoft, who provide their products to a number of similarly sized municipal governments across Canada and the US. We believe most record management vendors who satisfy the above requirements will be similarly priced over a five year amortization period:

2 x Annual subscription cost per user @ $ 440.00	$ 880.00
2 x Annual subscription cost *per server* (main, email) @ $ 440.00	$ 880.00
1 x Annual Email archive licensing @ $ 580.00	$ 580.00
5 x Annual Webview licenses (for public access) @ $ 140.00	$ 700.00
2 x Annual WebTools licenses (External use) @ $ 330.00	$ 660.00
Annual cost for software licenses	$ 3,700.00
Total licensing costs extended over 5 year amortization period	**$ 18,500.00**[2]

Any solution implemented will require significant time to install and configure along with the ongoing need for employee training and long-term support:

On-site server configuration including client software install	$ 3,500.00
Basic user training (1 day / 2 users)	$ 1,000.00
Advanced user training – delivered via Zoom / VPN	$ 2,100.00
Total training and deployment cost	**$ 6,600.00**

Optionally, there will also be – regardless of the solution implemented – a cost associated with scanning and uploading the existing backlog of documents. We have allocated budget to those anticipated costs as follows:

Document Backlog – Approximately 2,500 pages per box / filing drawer.	
Cost per box for scan-to-pdf services[3] – $ 450.00	
Box equivalents currently on site – 110 (total pages – 275,000)	
Backlog scanning cost (prior to shipment charges)	**$ 49,500.00**

[2] Quoted total includes direct support from vendor for the full five year term for all user support, software upgrades and fixes / new versions.

[3] Estimate provided by Blue Pencil assuming clean unstapled cost per standard banker's box of documents, not including shipment to scanning facility in Oakville, ON.

The training provided during the "advanced" session shown above is sufficient to enable a municipal employee to create customized workflows that will automate many of the existing municipal paper-based processes and, in so doing, to add additional ROI savings beyond those listed below. Optionally, the municipality may elect to have their workflows modeled for them by the vendor at a cost of $ 150 per hour for developer time.

Record Management System Basic..... $ 25,100.00
Includes all licenses, training and support for a 5 year term

Record Management System Enhanced..... $ 74,600.00
Includes all licenses, training, support and backlog scanning for a 5 year term

Record Management System Complete..... $ 80,600.00
Includes all licenses, training, support, backlog scanning and workflows[4] for a 5 year term

ROI Savings

There are multiple ROI calculators available from a variety of sources. We have used the simplified calculator available here and the following estimates to calculate basic raw ROI for the municipal office:

- Number of staff who routinely file/retrieve documents: 2
- Average number of files retrieved or returned per employee each day: 25
- Number of file cabinets or equivalent spaces: 24
- Approximate cost per square foot for office space: $ 10
- Average hourly salary[5]: $ 35.00

Total estimated annual ROI: $ 40,512.50

Total estimated ROI over the five (5) year projected period: $ 202,562.50[6]

[4] Workflows completed in this cost include all custom workflows for all documents provided by the municipality that are attached to this proposal as addenda.
[5] Listed hourly salary is based on conservatively-averaged public municipal wage data from a variety of sites including www.neuvoo.ca, www.indeed.ca and www.amcto.com. Salary is an approximation and does not necessarily reflect actual costs at your municipality.
[6] Total listed does *not* include value derived from increased efficiency, reduced need for additional staff, paper/toner savings, workflow automation; it is solely the savings available from space and time reduction for existing staff.

Replace or upgrade existing PCs

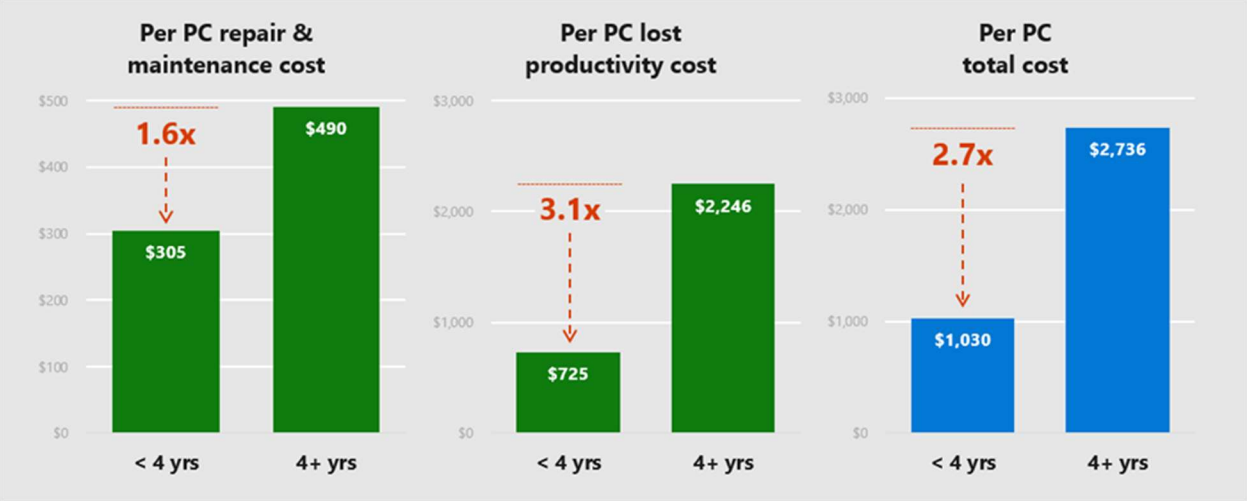
Currently there are two desktop systems in regular operation.[7] Neither unit is currently old enough to warrant replacement and both should work well with a new record management system. We are however noting that PCs should be replaced in 2024 and provide the following notes around system use. Additionally, we would suggest the addition of an emergency / remote use notebook system should circumstances require additional remote work in future

- As systems age, components are increasingly prone to failure due to wear. On systems that are more than five years old, parts are unlikely to be readily available. So not only are system failures more likely and common on older computers, they will also take longer to repair given the likelihood that local technical support will not have parts in stock and may not be able to readily acquire parts on short notice.

- Older systems have often had multiple different software tools installed and then removed, many have experienced malware infestations, virus issues, failed patch installations and other unwanted events over the course of their daily use. Each of these events can leave unwanted digital residue that not only impedes a system's performance, but can also mean a system is less secure than a modern equivalent with a 'clean', modern and fully-patched operating system.

- System performance has improved dramatically over the last decade – processors have gained additional speed and the addition of reasonably-priced "SSD" drives has dramatically improved general computer operations. New computer systems with SSDs, modern processors and faster memory can start from an off condition and be fully operational for a user within fifteen seconds or so. The performance difference between a ten year old system and a modern computer yields an additional 12 hours of available productive time per year per employee in startup time alone.[8]

[7] Hardware specifications for each computer are attached as addenda.
[8] J.Gold Associates 2018 – https://www.intel.com/content/dam/www/public/us/en/documents/reports/sme-pc-study-report.pdf



RFP Hardware and Technical Services Specifications

RFP Estimated Budget Allocation

We have also provided budget estimate for a notebook system including dock as described above. We do not expect costs to increase prior to RFP in 2021 / early 2022:

Notebook System Cost Estimate (Emergency Use / Remote Staff If Needed)

1 x Lenovo ThinkBook 15-IIL @ $ 1,240.00
1 x Lenovo USB-C Docking Station @ $ 290.00
1 x Lenovo 24” Widescreen Monitor @ 270.00
1 x Microsoft Office Standard @ $ 300.00
1 x Lenovo Bluetooth Keyboard and Mouse Combo @ $ 145.00
1 x Delivery and Setup (data migration / domain join) @ $ 200.00
1 x Basic Travel Case @ $ 50.00

Total for Notebook As Described Including All Listed Options ..... $ 2,495.00

Grand Total Suggested RFP Budget ..... $ 2,495.00

Existing Router / Firewall Appliance Status

A router is a device that sits at the border between your municipal network and the rest of the world's internet activities; that outer activity includes all manner of worthwhile material but also includes a growing number of hackers and an ever-more-sophisticated volume of ransomware, malware and spam.

A network's router examines packets of information that are allowed into your network – they must transit through the router's security settings before being allowed inside. Consequently your network's first and best line of defense is the router's ability to deeply inspect and analyze everything it is asked to allow in or out.

A commodity-priced router may be sufficient to connect your network to the outside world, but it is woefully insufficient to adequately protect your users and your corporate data after it has done so. We are therefore recommending a firewall appliance be purchased and implemented in place of a more conventional router.

Enterprise-grade firewalls are capable of 'deep packet inspection' (they do not merely look at the address the information packets are being delivered to and from, but they are capable of examining the contents of those packets as they move across the firewall and into / out of the network.) While no single layer of security can be said to be 100 % effective, an appropriate firewall will filter out a large percentage of malicious traffic that might otherwise cause serious downtime and expense for the office and will be vastly superior to the existing router.

According to a Varonis survey, the cost of even a single ransomware infestation is increasing rapidly – between 2018 the average ransom demand was $ 5,000. Currently, average demands have increased to more than $ 200,000.[9] Further, the same study shows that last year, more than one third of businesses experienced a ransomware attack.

While being exact about how much a security solution can save over a five year windows, our municipal experience here in Canada indicates that municipal governments in particular are targets of these attacks at an accelerated rate. We have therefore conservatively assessed a 'savings' of $ 5,000 per incident and conservatively assumed two (ideally thwarted!) attacks for your municipality in the next five years. Those savings are reflected in the ROI calculations above.

The current firewall in place at Nairn Hyman is a robust unit from Fortigate and does not require upgrade or alteration. The Township should continue to purchase annual upgrades and support software from the vendor to ensure security is at its highest reasonable level on the network edge.

[9] https://www.varonis.com/blog/ransomware-statistics-2021/

Desktop Scanners

Implementing a digital record storage solution will significantly reduce the need for paper production within the office – especially large volume print jobs such as agenda packages.

However, many residents and supplier firms will continue to mail or otherwise deliver paper based documents. Moving to a digital system – as the Province mandates – will necessarily mean that staff will benefit from a rapid way to turn paper-based records into digital records quickly and efficiently.

A single large scanner/printer/copier at the office is shared by all office users and is critical to the preparation of agendas and other large / colour documents. While we expect the office to move toward electronic distribution of more and more digital documents – resulting in less need for shared copier services – other features of a shared unit will become more vital to office productivity in the coming years. The ability to scan documents quickly and reliably into electronic format for long-term storage / search or transmission to residents will become vital very quickly as the office migrates to digital transmission and storage of more material. A small purpose-specific scanner at selected desks will encourage rapid adoption of a digital standard and will increase overall office efficiency.

RFP Specifications

- 2 x Desktop Scanners
- Preferred Vendors: Fujitsu, Xerox, Kodak
- Support for multiple scan sizes up to legal
- Document feeder (30 pages or better)
- Scan speed of 60 IPM or better
- Programmable buttons / screen for direct input to network share
- Scan to text-readable PDF
- USB connection

RFP Suggested Budget Allocation

We have obtained cost on a Fujitsu Scansnap ix1500 model meeting or exceeding the above specifications[10]

[10] Detailed ScanSnap specifications attached as addenda.

2 x Fujitsu ScanSnap ix1500
60 IPM
50 Page Sheet Feeder
600 DPI Resolution
11.5” x 6.3” x 6.0” Size (desk suitable) @ $ 685.00 = $ 1,370.00

Our experiences indicate that a small desk-based scanner will encourage user adoption of a digital standard for several reasons:

- It will make it extremely quick and simple to add paper documents to the digital record management system.
- It will not require a user to interrupt their workflow to access a shared copier/scanner.
- It will not ever require waiting because the shared scanner is in use.

We have assumed a 2 minute saving per document from the availability of a desktop scanner. Given a volume of 8,000 total paper documents over a five year term, that equates to 500 hours of staff time saved – an ROI of roughly $ 9,333.00 as indicated above.

Replace / identify / test all network cabling / rackmount

The existing network cabling at the office has been built up over a period of years and has been added and modified as needed. The existing cabling supports multiple PCs, printers and various devices and terminates in a small closet / under a desk.

- When problems arise, they are difficult to resolve quickly; significant time can be spent tracing back a single cable run to its source.
- Cable runs vary in cable-type and speed; the network is inconsistent in speed and reliability as a result.
- Cables that are not run cleanly and securely can be found under chair rollers, furniture legs and otherwise enduring damage that interrupts or breaks network connections and ultimately create downtime.
- Loose cables present tripping hazards to staff and visitors.

We recommend replacing the existing cable runs entirely, new cables to be run inside walls / above ceilings where possible and installed in raceways if necessary. All cables should be brought back to a single central point. All cables should be labeled clearly at both ends for ease of identification and, at the server end, cables should terminate in a patch panel.

RFP Hardware Specifications

- 2 x 1,000’ Rolls of CAT6 Solid Core Cable (CMP / Plenum)
- 1 x 24 Port Patch Panel (rack / wall mountable)
- 6 x Dual Port Surface Mount CAT6 Wall Jacks
- 1 x 16-port Managed Gigabit Network Switch (Layer 2 preferred)
- 16 x 1’ CAT6 patch cables (switch to patch panel connection)

RFP Technical Services Needed

- Remove former cable runs
- Mount patch panel and network switch (wall or rack mount)
- Install 12 runs of varying length in small office (max of 50’)
- Install 6 dual outlet wall mount boxes
- Terminate cables at wall mount boxes and patch panel
- Label wall mount box and patch panel connections clearly
- Connect patch panel to switch with provided patch cables
- Test all cable runs for speed and connectivity

RFP Estimated Budget Allocation

We would expect each cable run to take no more than an hour of labour to install, terminate and test. In addition, the hardware components are all common and broadly available from multiple vendors and sources. We are suggesting a budget that should allow a competent contractor to complete the work appropriately:

2 rolls of CAT6 cable, 24 Port Patch Panel, Jacks, Patch Cables (estimated)	$ 1,600.00
Managed Layer 2 16 Port Gigabit Switch (estimated)	$ 600.00
On-site Labour (14 Man Hours Estimated)	$ 1,400.00
Total Budget Suggested	**$ 3,600.00**

Security Software Subscription (5 Year)

The municipal office currently runs on the default Windows security tools. These tools provide basic protection against common virus and malware infections but cannot be centrally controlled and monitored; in an ideal model, security software would be automatically applied to workstations on the network and would be managed by the file server.

Absent central control, it is possible for a single user to accidentally remove or disable protection and thereby introduce malware into the local network.

In light of the increasing prevalence of ransomware and the specific targeting of Canadian municipal governments[11], we strongly recommend a corporate-grade security software tool that will reduce the possibility of ransomware attack and will allow for remediation – in many cases even after a ransomware launch inside the network.

RFP Software Specifications

- Centrally managed security software for up to ten systems
- Preferred vendors: Sentinel One, Symantec, Kaspersky, Trend Micro
- Ransomware rollback or similar feature
- Renewable annual support and updates

RFP Estimate Budget Allocation

We would anticipate the annual cost for a security tool sufficient to provide coverage on all network connected devices to be available at an annual cost below $ 1,000.00. A five year window of coverage for all devices should amount to less than $ 5,000.00

[11] https://www.datto.com/resource-downloads/Datto2018_StateOfTheChannel_RansomwareReport.pdf

Automate Standard Processes To Match Bylaw / Policy

The municipal office uses multiple forms to manage annual operations. A partial list of common forms and frequencies is shown below – amounting to more than thirty (30) individual documents that are used approximately 600 + times in the course of a single year – or a minimum of 3,000 documents filled out by various personnel in the course of a five year cycle.

It is possible to create digital templates of these documents and to model standard document processes within record management software – these are referred to in record management parlance as "workflows". These automated processes modeled inside a record management system (see recommendation 2 above) will enhance municipal operation in several ways:

- **Efficiency** – Given the large number of forms completed (3,000 +), significant time will be saved in finding, handwriting, processing and filing these forms. While there is a broad range of forms, given that each will need to be manually completed, processed and usually filed, we have assessed a very rough metric of 10 minutes per form. 600 forms annually yields a saving of 100 hours per year – $ 17,500 in savings over five years for a small municipality.

- **Consistency** – multiple different versions of the same form will no longer be possible. Forms and information collected will be completely consistent regardless of which employee completes the form. Forms can also be automatically routed to the appropriate municipal personnel for follow up / auditing.

- **Convenience** – Templated digital forms can be made available to the public without a visit to the office; all forms that the public need to complete can be distributed via the existing website, increasing convenience for residents or potential residents.

- **Cost** – Digital templates for common forms mean less paper consumption, less toner use, less wear on existing equipment.

- **Connectivity** – Digital forms, and the data those forms contain, can be rapidly shared with Provincial or Federal levels of government. Since future funding will increasingly depend on the municipality's ability to provide data of all sorts quickly, the ability to accurately and quickly extract data is becoming vital.

Document	Responsibility	Qty/Yr	Time Needed	Other Parties
Complaint Form		10		
Building Permit		3		
Septic / Sewage		3		
Cemetery Sign Off		2		
Time Sheet – Main Office		26		
Time Sheet – Satellite Location 1		26		
Time Sheet – Satellite Location 2		26		
Time Sheet – Satellite Location 3		26		
Fax Cover Sheet				
Change of Address		6		
Travel Expense		20		
Recreation / Facility Membership		100		
Other Application		100		
Gaming Application		2		
Recreation Hall Rental		3		
Water Turn On/Off Request		10		
Zoning Amendment Application		1		
Council Delegation		6		
Campground Agreement		30		
Tax Certificate Cover Letter		6		
Declaration of Interest		1		
		407		
Processes				
Tax Bills		2		
Agendas		12		
Minutes		12		
Bylaws				
Resolutions				
		26		
Public Works				
Purchase Order Book		180		
Water On / Off – needs sign off (non Covid)		10		
Stock Consumption? No Form		-		
Insurance CVOR Forms		1		
		191		
Building Inspection				

RFP Requirements

(Requires record management system selection as outlined in Section 2 above)

- Create digital templates of standard municipal forms (see list above)
- Install templates within record management system and add basic routing functionality

RFP Estimated Budget Allocation

In a modern record management system, tools exist to speed the creation of even complicated forms. We would therefore expect most forms to require roughly two hours of developer time to complete.

ROI Savings

60 hours of developer time @ $ 100/hr	$ 6,000.00	
ROI anticipated	$ 17,500.00	over five years
Net ROI	**$ 11,500.00**	

Create Policy / Structure For Remote Work

It is possible to secure the municipal office network in such a way that hacks and intrusions are limited and – ideally – entirely prevented. However, when access to the network is extended beyond the physical office location and remote work is necessary, security measures can become inconsistent and create risks.

Given the current pandemic being experienced across the globe, the need to enable work remotely has been wisely emphasized. This current crisis may pass in time, but others – both local and global – are certain to arise. We would therefore recommend the creation of a policy and technical framework around the remote work that will inevitably be necessary at points. This would consist of two aspects: Council policy and technical infrastructure.

Council may want to consider implementing at least the following:

- No remote access to the corporate network allowed outside the use of an approved VPN.
- No use of USB flash drives or other media to move files from home to the municipal office.
- Only corporate notebooks allowed to connect remotely; no use of home machines or other devices not owned and managed by the municipality.

Technical staff or subcontractors should implement the following:

- Emergency notebook (Recommendation 3 above) to be configured with VPN solution suitable to connect to corporate firewall securely (Recommendation 4 above).
- Emergency notebook to be configured with corporate anti-virus / anti-ransomware / monitoring solution (Recommendation 7 above)

Add Digital Tools for Council and Public Web Accessibility

Currently, individual Council members receive printed agenda packages prior to every Council meeting. These packages are often extremely large and can be hundreds of pages long. Each package is given to each councillor at least once a month – barring special meetings or emergency sessions which would also require paper-based distribution.

There is a significant amount of time spent in preparing, copying, collating and delivering these agenda packages to Council members. Office staff report an average of four hours per agenda, solely in the copying, collating and distribution phase.

Digital distribution of these documents will dramatically reduce staff time and expense and can be accomplished through a modern record management system.

- Immediately eliminate at least four hours of staff time monthly.
- Immediately eliminate the cost of printing roughly 6,000 pages per year
- Council members would receive agenda material earlier than previously provided – usually within moments of the agenda being finalized, rather than hours or days.
- Office staff would have the ability to update the agenda at anytime prior to the formal meeting's beginning to address potential errors or omissions.

RFP Recommendations

- Developer time and licensing to alter the existing Nairn Hyman website as follows:
- Publish a public / anonymous login site displaying searchable versions of agendas, minutes, bylaws and other public material.
- Publish a secured login site accessible to Council members for viewing of non-public documents.
- Publish a secured login site accessible to staff for remote work

RFP Technical Services Needed

Staff may be able to perform basic iPad setup without assistance. iPads would need to be configured as follows:

- Corporate email and password / 2FA assigned to each Council member & Mayor
- Basic training for each Council member on logging in and using the system

RFP Estimated Budget Allocation

Software developer hours for website remediation	$ 5,500.00

Optional Council Items for Remote Meetings

Additional items that may be desirable for hybrid / remote Council meetings:

Meeting Owl[12] - speaker / camera for centre of board room table	$ 1,400.00
100” 16:9 screen suitable for ceiling or wall mounting (manual).....	$ 200.00
3,000 + Lumens Ceiling Mounted Projector	$ 2,800.00
Total Budget Suggested	**$ 9,900.00**

ROI Savings

Assuming a five year use for the website a cost analysis would be as follows:

Total paper-based staff time over five years[13]	$ 6,800.00
Cost of paper and toner over five years[14]	$ 1,500.00
Projected Return On Investment (5 years)	**$ 8,300.00**

Note that no value or ROI has been assessed or reported for the public accessibility portion of this project – though that accessibility is of significant value to both staff and public, in terms of accountability, responsiveness and availability.

[12] https://ca-shop.owllabs.com/products/meeting-owl-pro

[13] 4 hours per month x 60 months x $ 35/hr

[14] 30,000 sheets (100 sheets per Council meeting x 60 meetings x 5 copies @ 5 cents per page)

Melanie's PC

```
Host name: MELANIE-PC
IP-address: 192.168.1.129
User name: NAIRNHYMAN\Melanie
Description:
Operating system: Microsoft Windows 10 Pro (version 10.0.19042; build
19042)
  Name: Microsoft Windows 10 Pro
  Version: 10.0.19042
  Build: 19042
  Install date: 3/5/2021 1:36:43 PM
Windows product ID: 00330-53358-71029-AAOEM
Windows product key: NGJYD-6R7GV-WK829-C996C-6JF9C
Internet Explorer version: 11.789.19041.0
Model: 11BD003EUS
System type: x64-based PC
BIOS: LENOVO (version: M30KT20A; date: 8/7/2020)
  Manufacturer: LENOVO
  Version: M30KT20A
  Date: 8/7/2020
Serial number: MJ0E354N
Motherboard: LENOVO (3178; version: SDK0J40697 WIN 3305335871029)
  Manufacturer: LENOVO
  Product: 3178
  Version: SDK0J40697 WIN 3305335871029
Chassis: Desktop
Processor: Intel(R) Core(TM) i5-9400 CPU @ 2.90GHz (architecture: x64;
2904 MHz)
  Name: Intel(R) Core(TM) i5-9400 CPU @ 2.90GHz
  Manufacturer: GenuineIntel
  Max clock speed: 2904 MHz
  Architecture: x64
  Level 2 cache size: 1536 KB
  Socket type: U3E1
  Version:
Physical memory: 15.9 GB
Memory slot: 8.0 GB (BANK 0; form factor: DIMM; memory type: Unknown)
  Capacity: 8.0 GB
  Device locator: ChannelA-DIMM1
  Bank label: BANK 0
  Form factor: DIMM
  Memory type: Unknown
  Manufacturer: Samsung
  Speed: 2667 ns
  Max capacity: 32.0 GB
Memory slot: 8.0 GB (BANK 2; form factor: DIMM; memory type: Unknown)
  Capacity: 8.0 GB
  Device locator: ChannelB-DIMM2
  Bank label: BANK 2
```

```
  Form factor: DIMM
  Memory type: Unknown
  Manufacturer: Kingston
  Speed: 2667 ns
  Max capacity: 32.0 GB
Disk: KINGSTON SA400S37480G (447.1 GB)
  Caption: KINGSTON SA400S37480G
  Serial number: 50026B76841EC8B4
  Size: 447.1 GB
  Manufacturer: (Standard disk drives)
  Interface type: IDE
  Media type: Fixed hard disk media
  Bytes per sector: 512
  Heads: 255
  Cylinders: 58369
  Sectors: 937697985
  Tracks: 14884095
Logical drive: C: (Local Fixed Disk; size: 446.5 GB; free space: 362.2 GB;
file system: NTFS)
  Name: C:
  Description: Local Fixed Disk
  Size: 446.5 GB
  Free space: 362.2 GB
  File system: NTFS
  Serial number: B0F2A638
  Network path:
Logical drive: D: (CD-ROM Disc)
  Name: D:
  Description: CD-ROM Disc
  Size:
  Free space:
  File system:
  Serial number:
  Network path:
Logical drive: J: (Network Connection; size: 1.0 TB; free space: 688.2 GB;
file system: NTFS; network path: \\NairnSRV\Shared Data)
  Name: J:
  Description: Network Connection
  Size: 1.0 TB
  Free space: 688.2 GB
  File system: NTFS
  Serial number: 92AE3953
  Network path: \\NairnSRV\Shared Data
Logical drive: M: (Network Connection; size: 1.0 TB; free space: 688.2 GB;
file system: NTFS; network path: \\NairnSRV\Shared Data)
  Name: M:
  Description: Network Connection
  Size: 1.0 TB
  Free space: 688.2 GB
  File system: NTFS
  Serial number: 92AE3953
  Network path: \\NairnSRV\Shared Data
Logical drive: S: (Network Connection; size: 1.0 TB; free space: 688.2 GB;
file system: NTFS; network path: \\nairnsrv\Sage)
```

```
  Name: S:
  Description: Network Connection
  Size: 1.0 TB
  Free space: 688.2 GB
  File system: NTFS
  Serial number: 92AE3953
  Network path: \\nairnsrv\Sage
CD-ROM: PLDS DVD-RW DA8AESH (DVD Writer)
  Name: PLDS DVD-RW DA8AESH
  Media type: DVD Writer
  Manufacturer: (Standard CD-ROM drives)
  Drive: D:
Video: Intel(R) UHD Graphics 630 (1920x1080x32b)
  Name: Intel(R) UHD Graphics 630
  Current horizontal resolution: 1920
  Current vertical resolution: 1080
  Current bits per pixel: 32
  Current refresh rate: 59 Hz
  Memory size: 1.0 GB
Monitor: LEN T23i-20
  Manufacturer: Lenovo
  Serial number: VNA4VL41
  Manufacture date: 2020 week 22
Monitor: LF24T40
  Manufacturer: Samsung
  Serial number: HCNN801738
  Manufacture date: 2020 week 34
Printer: TASKalfa 306ci (default printer)
  Name: TASKalfa 306ci
  Default printer: True
  Network printer: False
  Port name: WSD-3d075130-14f8-4650-9d7b-01b5fe069a0e
Printer: OneNote for Windows 10
  Name: OneNote for Windows 10
  Default printer: False
  Network printer: False
  Port name:
Microsoft.Office.OneNote_16001.14326.20458.0_x64__8wekyb3d8bbwe_microsoft.
onenoteim_S-1-5-21-1845360639-1247221253-2430207332-1123
Printer: OneNote (Desktop)
  Name: OneNote (Desktop)
  Default printer: False
  Network printer: False
  Port name: nul:
Printer: Microsoft XPS Document Writer
  Name: Microsoft XPS Document Writer
  Default printer: False
  Network printer: False
  Port name: PORTPROMPT:
Printer: Microsoft Print to PDF
  Name: Microsoft Print to PDF
  Default printer: False
  Network printer: False
  Port name: PORTPROMPT:
```

```
Printer: Fax
  Name: Fax
  Default printer: False
  Network printer: False
  Port name: SHRFAX:
Printer: \\nairnsrv\Kyocera TASKalfa 305
  Name: \\nairnsrv\Kyocera TASKalfa 305
  Default printer: False
  Network printer: True
  Port name: 192.168.1.6_1
Printer: \\NairnSRV.NairnHyman.local\Kyocera TASKalfa 306ci
  Name: \\NairnSRV.NairnHyman.local\Kyocera TASKalfa 306ci
  Default printer: False
  Network printer: True
  Port name: 192.168.1.50
Multimedia: Realtek High Definition Audio
  Name: Realtek High Definition Audio
  Manufacturer: Realtek
Multimedia: Intel(R) Display Audio
  Name: Intel(R) Display Audio
  Manufacturer: Intel(R) Corporation
Network adapter: Realtek PCIe GbE Family Controller
  Adapter type: Ethernet 802.3
  Net connection status: Connected
  Manufacturer: Realtek
  Speed: 1.0 Gbps
  Adapter IP-address: 192.168.1.129
  Adapter MAC-address: A4:AE:12:81:30:13
  DHCP enabled: True
  DHCP server: 192.168.1.5
  DNS domain: NairnHyman.local
  WINS primary server:
  WINS secondary server:
Local account: MELANIE-PC\Administrator
  Caption: MELANIE-PC\Administrator
  Name: Administrator
  Domain: MELANIE-PC
  Description: Built-in account for administering the computer/domain
  SID: S-1-5-21-2239851055-2302577641-3652347877-500
  Disabled: True
Local account: MELANIE-PC\DefaultAccount
  Caption: MELANIE-PC\DefaultAccount
  Name: DefaultAccount
  Domain: MELANIE-PC
  Description: A user account managed by the system.
  SID: S-1-5-21-2239851055-2302577641-3652347877-503
  Disabled: True
Local account: MELANIE-PC\Guest
  Caption: MELANIE-PC\Guest
  Name: Guest
  Domain: MELANIE-PC
  Description: Built-in account for guest access to the computer/domain
  SID: S-1-5-21-2239851055-2302577641-3652347877-501
  Disabled: True
```

```
Local account: MELANIE-PC\User
  Caption: MELANIE-PC\User
  Name: User
  Domain: MELANIE-PC
  Description:
  SID: S-1-5-21-2239851055-2302577641-3652347877-1001
  Disabled: False
Local account: MELANIE-PC\WDAGUtilityAccount
  Caption: MELANIE-PC\WDAGUtilityAccount
  Name: WDAGUtilityAccount
  Domain: MELANIE-PC
  Description: A user account managed and used by the system for Windows
Defender Application Guard scenarios.
  SID: S-1-5-21-2239851055-2302577641-3652347877-504
  Disabled: True
Share: ADMIN$ (Remote Admin)
  Name: ADMIN$
  Caption: Remote Admin
  Path: C:\Windows
  Type: Disk Drive Admin
Share: C$ (Default share)
  Name: C$
  Caption: Default share
  Path: C:\
  Type: Disk Drive Admin
Share: IPC$ (Remote IPC)
  Name: IPC$
  Caption: Remote IPC
  Path:
  Type: IPC Admin
Share: print$ (Printer Drivers)
  Name: print$
  Caption: Printer Drivers
  Path: C:\Windows\system32\spool\drivers
  Type: Disk Drive
System hotfix: KB4562830 - Update
System hotfix: KB4570334 - Security Update
System hotfix: KB4577586 - Update
System hotfix: KB4580325 - Security Update
System hotfix: KB4586864 - Security Update
System hotfix: KB4589212 - Update
System hotfix: KB5005539 - Update
System hotfix: KB5005699 - Security Update
System hotfix: KB5006670 - Security Update
Startup: NAIRNHYMAN\Melanie: com.squirrel.Teams.Teams
(C:\Users\Melanie\AppData\Local\Microsoft\Teams\Update.exe --processStart
"Teams.exe" --process-start-args "--system-initiated")
  Name: com.squirrel.Teams.Teams
  Command: C:\Users\Melanie\AppData\Local\Microsoft\Teams\Update.exe --
processStart "Teams.exe" --process-start-args "--system-initiated"
  Location: HKU\S-1-5-21-1845360639-1247221253-2430207332-
1123\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: NAIRNHYMAN\Melanie
```

```
Startup: NAIRNHYMAN\Melanie: Adobe Acrobat Synchronizer ("C:\Program Files
(x86)\Adobe\Acrobat DC\Acrobat\AdobeCollabSync.exe")
  Name: Adobe Acrobat Synchronizer
  Command: "C:\Program Files (x86)\Adobe\Acrobat
DC\Acrobat\AdobeCollabSync.exe"
  Location: HKU\S-1-5-21-1845360639-1247221253-2430207332-
1123\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: NAIRNHYMAN\Melanie
Startup: Public: SecurityHealth
(%windir%\system32\SecurityHealthSystray.exe)
  Name: SecurityHealth
  Command: %windir%\system32\SecurityHealthSystray.exe
  Location: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: Public
Startup: Public: RtkAudUService
("C:\Windows\System32\DriverStore\FileRepository\realtekservice.inf_amd64_
9971779a1c712866\RtkAudUService64.exe" -background)
  Name: RtkAudUService
  Command:
"C:\Windows\System32\DriverStore\FileRepository\realtekservice.inf_amd64_9
971779a1c712866\RtkAudUService64.exe" -background
  Location: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: Public
Startup: Public: AdobeGCInvoker-1.0 ("C:\Program Files (x86)\Common
Files\Adobe\AdobeGCClient\AGCInvokerUtility.exe")
  Name: AdobeGCInvoker-1.0
  Command: "C:\Program Files (x86)\Common
Files\Adobe\AdobeGCClient\AGCInvokerUtility.exe"
  Location: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: Public
Startup: Public: AdobeAAMUpdater-1.0 ("C:\Program Files (x86)\Common
Files\Adobe\OOBE\PDApp\UWA\UpdaterStartupUtility.exe")
  Name: AdobeAAMUpdater-1.0
  Command: "C:\Program Files (x86)\Common
Files\Adobe\OOBE\PDApp\UWA\UpdaterStartupUtility.exe"
  Location: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: Public


SOFTWARE
========

Adobe Acrobat Reader DC, Version: 21.007.20099, Publisher: Adobe Systems
Incorporated, Install date: 2021-10-12, Size: 608.6 MB
Adobe Creative Cloud, Version: 5.5.0.617, Publisher: Adobe Inc., Size:
574.8 MB
Adobe Genuine Service, Publisher: Adobe
Google Chrome, Version: 94.0.4606.81, Publisher: Google LLC, Install date:
2021-10-12
GoTo Opener, Version: 1.0.539, Publisher: LogMeIn, Inc., Install date:
2021-09-27, Size: 352.0 KB
GoToMeeting 10.17.0.19796, Version: 10.17.0.19796, Publisher: LogMeIn,
Inc.
```

Kyocera Product Library, Version: 6.0.1308, Publisher: KYOCERA Document Solutions Inc.
Microsoft 365 Apps for business - en-us, Version: 16.0.14430.20270, Publisher: Microsoft Corporation
Microsoft Access database engine 2016 (English), Version: 16.0.4519.1000, Publisher: Microsoft Corporation, Install date: 2021-03-12, Size: 137.1 MB
Microsoft Edge WebView2 Runtime, Version: 94.0.992.47, Publisher: Microsoft Corporation, Install date: 2021-10-12
Microsoft Edge, Version: 94.0.992.50, Publisher: Microsoft Corporation, Install date: 2021-10-14
Microsoft OneDrive, Version: 21.030.0211.0002, Publisher: Microsoft Corporation, Size: 152.6 MB
Microsoft SQL Server 2012 Native Client, Version: 11.2.5058.0, Publisher: Microsoft Corporation, Install date: 2021-03-12, Size: 8.0 MB
Microsoft Teams, Version: 1.4.00.26376, Publisher: Microsoft Corporation, Install date: 2021-10-02, Size: 111.6 MB
Microsoft Update Health Tools, Version: 2.84.0.0, Publisher: Microsoft Corporation, Install date: 2021-10-07, Size: 1.1 MB
Microsoft Visual C++ 2010 x64 Redistributable - 10.0.40219, Version: 10.0.40219, Publisher: Microsoft Corporation, Install date: 2021-09-16, Size: 13.9 MB
Microsoft Visual C++ 2010 x86 Redistributable - 10.0.40219, Version: 10.0.40219, Publisher: Microsoft Corporation, Install date: 2021-08-10, Size: 11.1 MB
Microsoft Visual C++ 2012 Redistributable (x64) - 11.0.61030, Version: 11.0.61030.0, Publisher: Microsoft Corporation, Size: 20.5 MB
Microsoft Visual C++ 2012 Redistributable (x86) - 11.0.61030, Version: 11.0.61030.0, Publisher: Microsoft Corporation, Size: 17.4 MB
Microsoft Visual C++ 2013 Redistributable (x64) - 12.0.40664, Version: 12.0.40664.0, Publisher: Microsoft Corporation, Size: 20.6 MB
Microsoft Visual C++ 2013 Redistributable (x86) - 12.0.21005, Version: 12.0.21005.1, Publisher: Microsoft Corporation, Size: 17.2 MB
Microsoft Visual C++ 2013 Redistributable (x86) - 12.0.30501, Version: 12.0.30501.0, Publisher: Microsoft Corporation, Size: 17.2 MB
Microsoft Visual C++ 2013 Redistributable (x86) - 12.0.40664, Version: 12.0.40664.0, Publisher: Microsoft Corporation, Size: 17.2 MB
Microsoft Visual C++ 2015-2019 Redistributable (x64) - 14.23.27820, Version: 14.23.27820.0, Publisher: Microsoft Corporation, Size: 23.2 MB
Microsoft Visual C++ 2015-2019 Redistributable (x86) - 14.23.27820, Version: 14.23.27820.0, Publisher: Microsoft Corporation, Size: 20.2 MB
Mozilla Firefox (x64 en-US), Version: 93.0, Publisher: Mozilla, Size: 204.0 MB
Mozilla Maintenance Service, Version: 86.0.1, Publisher: Mozilla, Size: 326.0 KB
Sage 300 .NET Libraries 2021, Version: 6.8.0, Publisher: Sage Software, Inc., Install date: 2021-03-16, Size: 2.5 MB
Sage 300 Workstation Setup 2021, Version: 6.8.010, Publisher: Sage Software, Inc., Install date: 2021-03-16
Sage Advisor Update, Version: 2.4.1.0, Publisher: Sage Software, Inc., Install date: 2021-08-16, Size: 38.9 MB
SAP Crystal Reports 2016 SP9, Version: 14.2.9.3791, Publisher: SAP
SysTools EML Converter v5.0, Publisher: SysTools Software Pvt. Ltd., Install date: 2021-03-12, Size: 199.9 MB

Teams Machine-Wide Installer, Version: 1.4.0.2781, Publisher: Microsoft Corporation, Install date: 2021-03-09, Size: 109.1 MB
TeamViewer, Version: 15.22.3, Publisher: TeamViewer
WordPerfect Office 12, Version: 12.0.0.238, Publisher: Corel Corporation, Install date: 2021-03-12, Size: 337.9 MB
Zoom, Version: 5.5.4 (13142.0301), Publisher: Zoom Video Communications, Inc., Size: 9.8 MB

PROCESSES
=========

AcrobatNotificationClient.exe (C:\Program Files\WindowsApps\ReaderNotificationClient_1.0.4.0_x86__e1rzdqpraam7r\AcrobatNotificationClient.exe)
Adobe CEF Helper.exe (C:\Program Files\Common Files\Adobe\Adobe Desktop Common\HEX\Adobe CEF Helper.exe)
Adobe CEF Helper.exe (C:\Program Files\Common Files\Adobe\Adobe Desktop Common\HEX\Adobe CEF Helper.exe)
Adobe Desktop Service.exe (C:\Program Files (x86)\Common Files\Adobe\Adobe Desktop Common\ADS\Adobe Desktop Service.exe)
AdobeIPCBroker.exe (C:\Program Files (x86)\Common Files\Adobe\Adobe Desktop Common\IPCBox\AdobeIPCBroker.exe)
AdobeNotificationClient.exe (C:\Program Files\WindowsApps\AdobeNotificationClient_2.0.1.8_x86__enpm4xejd91yc\AdobeNotificationClient.exe)
ApplicationFrameHost.exe (C:\Windows\system32\ApplicationFrameHost.exe)
CCLibrary.exe (C:\Program Files\Common Files\Adobe\Creative Cloud Libraries\CCLibrary.exe)
CCXProcess.exe (C:\Program Files\Adobe\Adobe Creative Cloud Experience\CCXProcess.exe)
chrome.exe (C:\Program Files\Google\Chrome\Application\chrome.exe)
chrome.exe (C:\Program Files\Google\Chrome\Application\chrome.exe)
chrome.exe (C:\Program Files\Google\Chrome\Application\chrome.exe)
chrome.exe (C:\Program Files\Google\Chrome\Application\chrome.exe)
chrome.exe (C:\Program Files\Google\Chrome\Application\chrome.exe)
chrome.exe (C:\Program Files\Google\Chrome\Application\chrome.exe)
chrome.exe (C:\Program Files\Google\Chrome\Application\chrome.exe)
chrome.exe (C:\Program Files\Google\Chrome\Application\chrome.exe)
chrome.exe (C:\Program Files\Google\Chrome\Application\chrome.exe)
chrome.exe (C:\Program Files\Google\Chrome\Application\chrome.exe)
chrome.exe (C:\Program Files\Google\Chrome\Application\chrome.exe)
conhost.exe (C:\Windows\system32\conhost.exe)
conhost.exe (C:\Windows\system32\conhost.exe)
CoreSync.exe (C:\Program Files (x86)\Adobe\Adobe Sync\CoreSync\CoreSync.exe)
Creative Cloud Helper.exe (C:\Program Files\Adobe\Adobe Creative Cloud\ACC\Creative Cloud Helper.exe)
Creative Cloud Helper.exe (C:\Program Files\Adobe\Adobe Creative Cloud\ACC\Creative Cloud Helper.exe)
Creative Cloud.exe (C:\Program Files\Adobe\Adobe Creative Cloud\ACC\Creative Cloud.exe)
dllhost.exe (C:\Windows\system32\DllHost.exe)
explorer.exe (C:\Windows\Explorer.EXE)

```
firefox.exe (C:\Program Files\Mozilla Firefox\firefox.exe)
firefox.exe (C:\Program Files\Mozilla Firefox\firefox.exe)
firefox.exe (C:\Program Files\Mozilla Firefox\firefox.exe)
firefox.exe (C:\Program Files\Mozilla Firefox\firefox.exe)
firefox.exe (C:\Program Files\Mozilla Firefox\firefox.exe)
firefox.exe (C:\Program Files\Mozilla Firefox\firefox.exe)
freepcaudit - Copy.exe (C:\Users\Melanie\Downloads\freepcaudit - Copy.exe)
HxOutlook.exe (C:\Program
Files\WindowsApps\microsoft.windowscommunicationsapps_16005.14326.20436.0_
x64__8wekyb3d8bbwe\HxOutlook.exe)
HxTsr.exe (C:\Program
Files\WindowsApps\microsoft.windowscommunicationsapps_16005.14326.20436.0_
x64__8wekyb3d8bbwe\HxTsr.exe)
igfxEM.exe
(C:\Windows\System32\DriverStore\FileRepository\cui_dch.inf_amd64_790c2068
3c3a62ec\igfxEM.exe)
LockApp.exe
(C:\Windows\SystemApps\Microsoft.LockApp_cw5n1h2txyewy\LockApp.exe)
Microsoft.Photos.exe (C:\Program
Files\WindowsApps\Microsoft.Windows.Photos_2021.21090.10007.0_x64__8wekyb3
d8bbwe\Microsoft.Photos.exe)
node.exe (C:\Program Files\Adobe\Adobe Creative Cloud
Experience\libs\node.exe)
node.exe (C:\Program Files\Common Files\Adobe\Creative Cloud
Libraries\libs\node.exe)
OUTLOOK.EXE (C:\Program Files\Microsoft Office\root\Office16\OUTLOOK.EXE)
RtkAudUService64.exe
(C:\Windows\System32\DriverStore\FileRepository\realtekservice.inf_amd64_9
971779a1c712866\RtkAudUService64.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
SearchApp.exe
(C:\Windows\SystemApps\Microsoft.Windows.Search_cw5n1h2txyewy\SearchApp.ex
e)
SecurityHealthSystray.exe (C:\Windows\System32\SecurityHealthSystray.exe)
SettingSyncHost.exe (C:\Windows\system32\SettingSyncHost.exe)
ShellExperienceHost.exe
(C:\Windows\SystemApps\ShellExperienceHost_cw5n1h2txyewy\ShellExperienceHo
st.exe)
sihost.exe (C:\Windows\system32\sihost.exe)
smartscreen.exe (C:\Windows\System32\smartscreen.exe)
StartMenuExperienceHost.exe
(C:\Windows\SystemApps\Microsoft.Windows.StartMenuExperienceHost_cw5n1h2tx
yewy\StartMenuExperienceHost.exe)
```

```
svchost.exe (C:\Windows\system32\svchost.exe)
svchost.exe (C:\Windows\System32\svchost.exe)
svchost.exe (C:\Windows\system32\svchost.exe)
svchost.exe (C:\Windows\system32\svchost.exe)
SystemSettings.exe (C:\Windows\ImmersiveControlPanel\SystemSettings.exe)
taskhostw.exe (C:\Windows\system32\taskhostw.exe)
Teams.exe
(C:\Users\Melanie\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Melanie\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Melanie\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Melanie\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Melanie\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Melanie\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Melanie\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Melanie\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Melanie\AppData\Local\Microsoft\Teams\current\Teams.exe)
TeamViewer.exe (C:\Program Files (x86)\TeamViewer\TeamViewer.exe)
TextInputHost.exe
(C:\Windows\SystemApps\MicrosoftWindows.Client.CBS_cw5n1h2txyewy\InputApp\
TextInputHost.exe)
UserOOBEBroker.exe (C:\Windows\System32\oobe\UserOOBEBroker.exe)
Video.UI.exe (C:\Program
Files\WindowsApps\Microsoft.ZuneVideo_10.21092.10731.0_x64__8wekyb3d8bbwe\
Video.UI.exe)
WinStore.App.exe (C:\Program
Files\WindowsApps\Microsoft.WindowsStore_12107.1001.15.0_x64__8wekyb3d8bbw
e\WinStore.App.exe)
YourPhone.exe (C:\Program
Files\WindowsApps\Microsoft.YourPhone_1.21084.78.0_x64__8wekyb3d8bbwe\Your
Phone.exe)
```

Belinda's PC

```
Host name: BELINDA-PC
IP-address: 192.168.1.130
User name: NAIRNHYMAN\Belinda
Description:
Operating system: Microsoft Windows 10 Pro (version 10.0.19042; build
19042)
  Name: Microsoft Windows 10 Pro
  Version: 10.0.19042
  Build: 19042
  Install date: 3/5/2021 11:30:50 AM
Windows product ID: 00330-53358-71110-AAOEM
Windows product key: PJCTN-MP2CF-XGG2H-Q9Y9R-MWRC2
Internet Explorer version: 11.789.19041.0
Model: 11BD003EUS
System type: x64-based PC
BIOS: LENOVO (version: M30KT20A; date: 8/7/2020)
  Manufacturer: LENOVO
  Version: M30KT20A
  Date: 8/7/2020
Serial number: MJ0E354Z
Motherboard: LENOVO (3178; version: SDK0J40697 WIN 3305335871110)
  Manufacturer: LENOVO
  Product: 3178
  Version: SDK0J40697 WIN 3305335871110
Chassis: Desktop
Processor: Intel(R) Core(TM) i5-9400 CPU @ 2.90GHz (architecture: x64;
2904 MHz)
  Name: Intel(R) Core(TM) i5-9400 CPU @ 2.90GHz
  Manufacturer: GenuineIntel
  Max clock speed: 2904 MHz
  Architecture: x64
  Level 2 cache size: 1536 KB
  Socket type: U3E1
  Version:
Physical memory: 15.9 GB
Memory slot: 8.0 GB (BANK 0; form factor: DIMM; memory type: Unknown)
  Capacity: 8.0 GB
  Device locator: ChannelA-DIMM1
  Bank label: BANK 0
  Form factor: DIMM
  Memory type: Unknown
  Manufacturer: Samsung
  Speed: 2667 ns
  Max capacity: 32.0 GB
Memory slot: 8.0 GB (BANK 2; form factor: DIMM; memory type: Unknown)
  Capacity: 8.0 GB
  Device locator: ChannelB-DIMM2
  Bank label: BANK 2
  Form factor: DIMM
  Memory type: Unknown
  Manufacturer: Kingston
  Speed: 2667 ns
```

```
  Max capacity: 32.0 GB
Disk: KINGSTON SA400S37480G (447.1 GB)
  Caption: KINGSTON SA400S37480G
  Serial number: 50026B76841ECB8A
  Size: 447.1 GB
  Manufacturer: (Standard disk drives)
  Interface type: IDE
  Media type: Fixed hard disk media
  Bytes per sector: 512
  Heads: 255
  Cylinders: 58369
  Sectors: 937697985
  Tracks: 14884095
Logical drive: C: (Local Fixed Disk; size: 446.5 GB; free space: 272.7 GB;
file system: NTFS)
  Name: C:
  Description: Local Fixed Disk
  Size: 446.5 GB
  Free space: 272.7 GB
  File system: NTFS
  Serial number: 7E3731B8
  Network path:
Logical drive: D: (CD-ROM Disc)
  Name: D:
  Description: CD-ROM Disc
  Size:
  Free space:
  File system:
  Serial number:
  Network path:
Logical drive: J: (Network Connection; size: 1.0 TB; free space: 688.2 GB;
file system: NTFS; network path: \\NairnSRV\Shared Data)
  Name: J:
  Description: Network Connection
  Size: 1.0 TB
  Free space: 688.2 GB
  File system: NTFS
  Serial number: 92AE3953
  Network path: \\NairnSRV\Shared Data
Logical drive: S: (Network Connection; size: 1.0 TB; free space: 688.2 GB;
file system: NTFS; network path: \\nairnsrv\Sage)
  Name: S:
  Description: Network Connection
  Size: 1.0 TB
  Free space: 688.2 GB
  File system: NTFS
  Serial number: 92AE3953
  Network path: \\nairnsrv\Sage
CD-ROM: PLDS DVD-RW DA8AESH (DVD Writer)
  Name: PLDS DVD-RW DA8AESH
  Media type: DVD Writer
  Manufacturer: (Standard CD-ROM drives)
  Drive: D:
Video: Intel(R) UHD Graphics 630 (1920x1080x32b)
```

```
  Name: Intel(R) UHD Graphics 630
  Current horizontal resolution: 1920
  Current vertical resolution: 1080
  Current bits per pixel: 32
  Current refresh rate: 59 Hz
  Memory size: 1.0 GB
Monitor: LEN T23i-20
  Manufacturer: Lenovo
  Serial number: VNA4VL3Z
  Manufacture date: 2020 week 22
Monitor: LF24T40
  Manufacturer: Samsung
  Serial number: HCNNA01324
  Manufacture date: 2020 week 44
Printer: Adobe PDF
  Name: Adobe PDF
  Default printer: False
  Network printer: False
  Port name: Documents\*.pdf
Printer: TASKalfa 306ci (default printer)
  Name: TASKalfa 306ci
  Default printer: True
  Network printer: False
  Port name: WSD-4d9b9a69-1eca-4d71-9e6c-5e2165748c9d
Printer: TASKalfa 305
  Name: TASKalfa 305
  Default printer: False
  Network printer: False
  Port name: WSD-7b738a7f-0a79-4ffc-ab75-f1dd8c9bf4ee
Printer: OneNote (Desktop)
  Name: OneNote (Desktop)
  Default printer: False
  Network printer: False
  Port name: nul:
Printer: Microsoft XPS Document Writer
  Name: Microsoft XPS Document Writer
  Default printer: False
  Network printer: False
  Port name: PORTPROMPT:
Printer: Microsoft Print to PDF
  Name: Microsoft Print to PDF
  Default printer: False
  Network printer: False
  Port name: PORTPROMPT:
Printer: Fax
  Name: Fax
  Default printer: False
  Network printer: False
  Port name: SHRFAX:
Printer: Brother MFC-L2720DW series Printer
  Name: Brother MFC-L2720DW series Printer
  Default printer: False
  Network printer: False
  Port name: WSD-4891d4b3-0375-4f2f-bf48-c7879de97a49
```

```
Printer: Brother HL-L2350DW series Printer
  Name: Brother HL-L2350DW series Printer
  Default printer: False
  Network printer: False
  Port name: WSD-c20348d4-98c9-4e80-8507-c0140bae415e
Printer: \\NairnSRV\Kyocera TASKalfa 305
  Name: \\NairnSRV\Kyocera TASKalfa 305
  Default printer: False
  Network printer: True
  Port name: 192.168.1.6_1
Multimedia: Realtek High Definition Audio
  Name: Realtek High Definition Audio
  Manufacturer: Realtek
Multimedia: Intel(R) Display Audio
  Name: Intel(R) Display Audio
  Manufacturer: Intel(R) Corporation
Network adapter: Realtek PCIe GbE Family Controller
  Adapter type: Ethernet 802.3
  Net connection status: Connected
  Manufacturer: Realtek
  Speed: 1.0 Gbps
  Adapter IP-address: 192.168.1.130
  Adapter MAC-address: A4:AE:12:81:30:24
  DHCP enabled: True
  DHCP server: 192.168.1.5
  DNS domain: NairnHyman.local
  WINS primary server:
  WINS secondary server:
Local account: BELINDA-PC\Administrator
  Caption: BELINDA-PC\Administrator
  Name: Administrator
  Domain: BELINDA-PC
  Description: Built-in account for administering the computer/domain
  SID: S-1-5-21-889999598-3626522295-1934420005-500
  Disabled: True
Local account: BELINDA-PC\DefaultAccount
  Caption: BELINDA-PC\DefaultAccount
  Name: DefaultAccount
  Domain: BELINDA-PC
  Description: A user account managed by the system.
  SID: S-1-5-21-889999598-3626522295-1934420005-503
  Disabled: True
Local account: BELINDA-PC\Guest
  Caption: BELINDA-PC\Guest
  Name: Guest
  Domain: BELINDA-PC
  Description: Built-in account for guest access to the computer/domain
  SID: S-1-5-21-889999598-3626522295-1934420005-501
  Disabled: True
Local account: BELINDA-PC\User
  Caption: BELINDA-PC\User
  Name: User
  Domain: BELINDA-PC
  Description:
```

```
  SID: S-1-5-21-889999598-3626522295-1934420005-1001
  Disabled: False
Local account: BELINDA-PC\WDAGUtilityAccount
  Caption: BELINDA-PC\WDAGUtilityAccount
  Name: WDAGUtilityAccount
  Domain: BELINDA-PC
  Description: A user account managed and used by the system for Windows
Defender Application Guard scenarios.
  SID: S-1-5-21-889999598-3626522295-1934420005-504
  Disabled: True
Share: ADMIN$ (Remote Admin)
  Name: ADMIN$
  Caption: Remote Admin
  Path: C:\Windows
  Type: Disk Drive Admin
Share: C$ (Default share)
  Name: C$
  Caption: Default share
  Path: C:\
  Type: Disk Drive Admin
Share: IPC$ (Remote IPC)
  Name: IPC$
  Caption: Remote IPC
  Path:
  Type: IPC Admin
Share: print$ (Printer Drivers)
  Name: print$
  Caption: Printer Drivers
  Path: C:\Windows\system32\spool\drivers
  Type: Disk Drive
System hotfix: KB4562830 - Update
System hotfix: KB4570334 - Security Update
System hotfix: KB4577586 - Update
System hotfix: KB4580325 - Security Update
System hotfix: KB4586864 - Security Update
System hotfix: KB4589212 - Update
System hotfix: KB5004331 - Update
System hotfix: KB5005539 - Update
System hotfix: KB5005699 - Security Update
System hotfix: KB5006670 - Security Update
Startup: NAIRNHYMAN\Belinda: Send to OneNote (Send to OneNote.lnk)
  Name: Send to OneNote
  Command: Send to OneNote.lnk
  Location: Startup
  User: NAIRNHYMAN\Belinda
Startup: NAIRNHYMAN\Belinda: HP Scanjet Assistance (C:\Program Files
(x86)\HP\HP Scanjet Software\HPScanjetTray.exe -run)
  Name: HP Scanjet Assistance
  Command: C:\Program Files (x86)\HP\HP Scanjet Software\HPScanjetTray.exe
-run
  Location: HKU\S-1-5-21-1845360639-1247221253-2430207332-
1106\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: NAIRNHYMAN\Belinda
```

```
Startup: NAIRNHYMAN\Belinda: iCloudServices ("C:\Program Files
(x86)\Common Files\Apple\Internet Services\iCloudServices.exe")
  Name: iCloudServices
  Command: "C:\Program Files (x86)\Common Files\Apple\Internet
Services\iCloudServices.exe"
  Location: HKU\S-1-5-21-1845360639-1247221253-2430207332-
1106\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: NAIRNHYMAN\Belinda
Startup: NAIRNHYMAN\Belinda: com.squirrel.Teams.Teams
(C:\Users\Belinda\AppData\Local\Microsoft\Teams\Update.exe --processStart
"Teams.exe" --process-start-args "--system-initiated")
  Name: com.squirrel.Teams.Teams
  Command: C:\Users\Belinda\AppData\Local\Microsoft\Teams\Update.exe --
processStart "Teams.exe" --process-start-args "--system-initiated"
  Location: HKU\S-1-5-21-1845360639-1247221253-2430207332-
1106\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: NAIRNHYMAN\Belinda
Startup: NAIRNHYMAN\Belinda: fa_rss
("C:\Users\Belinda\AppData\Roaming\FA\fa_rss.exe" /init 3910523764)
  Name: fa_rss
  Command: "C:\Users\Belinda\AppData\Roaming\FA\fa_rss.exe" /init
3910523764
  Location: HKU\S-1-5-21-1845360639-1247221253-2430207332-
1106\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: NAIRNHYMAN\Belinda
Startup: NAIRNHYMAN\Belinda: Adobe Acrobat Synchronizer ("C:\Program Files
(x86)\Adobe\Acrobat DC\Acrobat\AdobeCollabSync.exe")
  Name: Adobe Acrobat Synchronizer
  Command: "C:\Program Files (x86)\Adobe\Acrobat
DC\Acrobat\AdobeCollabSync.exe"
  Location: HKU\S-1-5-21-1845360639-1247221253-2430207332-
1106\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: NAIRNHYMAN\Belinda
Startup: Public: SecurityHealth
(%windir%\system32\SecurityHealthSystray.exe)
  Name: SecurityHealth
  Command: %windir%\system32\SecurityHealthSystray.exe
  Location: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: Public
Startup: Public: RtkAudUService
("C:\Windows\System32\DriverStore\FileRepository\realtekservice.inf_amd64_
9971779a1c712866\RtkAudUService64.exe" -background)
  Name: RtkAudUService
  Command:
"C:\Windows\System32\DriverStore\FileRepository\realtekservice.inf_amd64_9
971779a1c712866\RtkAudUService64.exe" -background
  Location: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: Public
Startup: Public: AdobeGCInvoker-1.0 ("C:\Program Files (x86)\Common
Files\Adobe\AdobeGCClient\AGCInvokerUtility.exe")
  Name: AdobeGCInvoker-1.0
  Command: "C:\Program Files (x86)\Common
Files\Adobe\AdobeGCClient\AGCInvokerUtility.exe"
  Location: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
```

```
  User: Public
Startup: Public: AdobeAAMUpdater-1.0 ("C:\Program Files (x86)\Common
Files\Adobe\OOBE\PDApp\UWA\UpdaterStartupUtility.exe")
  Name: AdobeAAMUpdater-1.0
  Command: "C:\Program Files (x86)\Common
Files\Adobe\OOBE\PDApp\UWA\UpdaterStartupUtility.exe"
  Location: HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
  User: Public


SOFTWARE
========

Adobe Acrobat DC, Version: 21.007.20099, Publisher: Adobe Systems
Incorporated, Install date: 2021-10-14, Size: 2.6 GB
Adobe Acrobat Reader DC, Version: 21.007.20099, Publisher: Adobe Systems
Incorporated, Install date: 2021-10-12, Size: 407.7 MB
Adobe Connect, Version: 2019.3.3.32, Publisher: Adobe Systems Inc., Size:
17.4 MB
Adobe Creative Cloud, Version: 5.4.5.550, Publisher: Adobe Inc., Size:
555.3 MB
Adobe Genuine Service, Publisher: Adobe
BioAPI Framework
Cisco Webex Meetings, Publisher: Cisco Webex LLC
Dell Driver Download Manager, Version: 2.1.0.0, Publisher: Dell Inc.
Dropbox, Version: 133.4.4089, Publisher: Dropbox, Inc.
FA Really Simple Syndication (RSS), Version: fa.1007dl, Publisher: Fast
Corporate Ltd.
Google Chrome, Version: 94.0.4606.81, Publisher: Google LLC, Install date:
2021-10-12
Google Earth Pro, Version: 7.3.4.8248, Publisher: Google, Install date:
2021-08-09, Size: 225.9 MB
Microsoft 365 Apps for business - en-us, Version: 16.0.14326.20404,
Publisher: Microsoft Corporation
Microsoft Access database engine 2016 (English), Version: 16.0.4519.1000,
Publisher: Microsoft Corporation, Install date: 2021-10-13, Size: 718.9 MB
Microsoft Edge WebView2 Runtime, Version: 94.0.992.47, Publisher:
Microsoft Corporation, Install date: 2021-10-12
Microsoft Edge, Version: 94.0.992.47, Publisher: Microsoft Corporation,
Install date: 2021-10-13
Microsoft OneDrive, Version: 21.180.0905.0007, Publisher: Microsoft
Corporation, Size: 191.2 MB
Microsoft Online Services Sign-in Assistant, Version: 7.250.4556.0,
Publisher: Microsoft Corporation, Install date: 2021-06-01, Size: 5.6 MB
Microsoft SQL Server 2012 Native Client, Version: 11.2.5058.0, Publisher:
Microsoft Corporation, Install date: 2021-03-15, Size: 8.0 MB
Microsoft Teams, Version: 1.4.00.26376, Publisher: Microsoft Corporation,
Install date: 2021-09-28, Size: 111.6 MB
Microsoft Update Health Tools, Version: 2.84.0.0, Publisher: Microsoft
Corporation, Install date: 2021-10-07, Size: 1.1 MB
Microsoft Visual C++ 2010  x64 Redistributable - 10.0.40219, Version:
10.0.40219, Publisher: Microsoft Corporation, Install date: 2021-06-11,
Size: 13.9 MB
```

Microsoft Visual C++ 2010 x86 Redistributable - 10.0.40219, Version: 10.0.40219, Publisher: Microsoft Corporation, Install date: 2021-06-11, Size: 11.1 MB
Microsoft Visual C++ 2012 Redistributable (x64) - 11.0.61030, Version: 11.0.61030.0, Publisher: Microsoft Corporation, Size: 20.5 MB
Microsoft Visual C++ 2012 Redistributable (x86) - 11.0.61030, Version: 11.0.61030.0, Publisher: Microsoft Corporation, Size: 17.4 MB
Microsoft Visual C++ 2013 Redistributable (x64) - 12.0.40664, Version: 12.0.40664.0, Publisher: Microsoft Corporation, Size: 20.6 MB
Microsoft Visual C++ 2013 Redistributable (x86) - 12.0.30501, Version: 12.0.30501.0, Publisher: Microsoft Corporation, Size: 17.2 MB
Microsoft Visual C++ 2013 Redistributable (x86) - 12.0.40664, Version: 12.0.40664.0, Publisher: Microsoft Corporation, Size: 17.2 MB
Microsoft Visual C++ 2015-2019 Redistributable (x64) - 14.23.27820, Version: 14.23.27820.0, Publisher: Microsoft Corporation, Size: 23.2 MB
Microsoft Visual C++ 2015-2019 Redistributable (x86) - 14.23.27820, Version: 14.23.27820.0, Publisher: Microsoft Corporation, Size: 20.2 MB
Mozilla Firefox (x64 en-CA), Version: 93.0, Publisher: Mozilla, Size: 207.1 MB
Mozilla Maintenance Service, Version: 86.0.1, Publisher: Mozilla, Size: 326.0 KB
Sage 300 .NET Libraries 2021, Version: 6.8.0, Publisher: Sage Software, Inc., Install date: 2021-03-15, Size: 2.5 MB
Sage 300 Workstation Setup 2021, Version: 6.8.010, Publisher: Sage Software, Inc., Install date: 2021-03-15
Teams Machine-Wide Installer, Version: 1.4.0.7174, Publisher: Microsoft Corporation, Install date: 2021-06-11, Size: 104.2 MB
TeamViewer, Version: 15.22.3, Publisher: TeamViewer
UPEK TouchChip Fingerprint Reader
Windows Azure Active Directory Module for Windows PowerShell, Version: 1.0.0, Publisher: Microsoft Corporation, Install date: 2021-06-01, Size: 5.1 MB
Windows Live Essentials, Version: 16.4.3528.0331, Publisher: Microsoft Corporation
WordPerfect Office 12, Version: 12.0.0.238, Publisher: Corel Corporation, Install date: 2021-03-12, Size: 337.9 MB
Zoom, Version: 5.7.7 (1105), Publisher: Zoom Video Communications, Inc., Size: 9.8 MB

PROCESSES
=========

a4wLPMgr.exe (\\nairnsrv\Sage\RUNTIME\a4wLPMgr.exe)
a4wSignonMgr.exe (\\nairnsrv\Sage\RUNTIME\a4wSignonMgr.exe)
accpac.exe (\\nairnsrv\Sage\Runtime\accpac.exe)
AcrobatNotificationClient.exe (C:\Program Files\WindowsApps\AcrobatNotificationClient_1.0.4.0_x86__e1rzdqpraam7r\AcrobatNotificationClient.exe)
Adobe CEF Helper.exe (C:\Program Files\Common Files\Adobe\Adobe Desktop Common\HEX\Adobe CEF Helper.exe)
Adobe CEF Helper.exe (C:\Program Files\Common Files\Adobe\Adobe Desktop Common\HEX\Adobe CEF Helper.exe)

```
Adobe Desktop Service.exe (C:\Program Files (x86)\Common Files\Adobe\Adobe
Desktop Common\ADS\Adobe Desktop Service.exe)
AdobeIPCBroker.exe (C:\Program Files (x86)\Common Files\Adobe\Adobe
Desktop Common\IPCBox\AdobeIPCBroker.exe)
AdobeNotificationClient.exe (C:\Program
Files\WindowsApps\AdobeNotificationClient_2.0.1.8_x86__enpm4xejd91yc\Adobe
NotificationClient.exe)
ApplicationFrameHost.exe (C:\Windows\system32\ApplicationFrameHost.exe)
CCLibrary.exe (C:\Program Files\Common Files\Adobe\Creative Cloud
Libraries\CCLibrary.exe)
CCXProcess.exe (C:\Program Files\Adobe\Adobe Creative Cloud
Experience\CCXProcess.exe)
conhost.exe (C:\Windows\system32\conhost.exe)
conhost.exe (C:\Windows\system32\conhost.exe)
CoreSync.exe (C:\Program Files (x86)\Adobe\Adobe
Sync\CoreSync\CoreSync.exe)
Creative Cloud Helper.exe (C:\Program Files\Adobe\Adobe Creative
Cloud\ACC\Creative Cloud Helper.exe)
Creative Cloud Helper.exe (C:\Program Files\Adobe\Adobe Creative
Cloud\ACC\Creative Cloud Helper.exe)
Creative Cloud.exe (C:\Program Files\Adobe\Adobe Creative
Cloud\ACC\Creative Cloud.exe)
dllhost.exe (C:\Windows\system32\DllHost.exe)
Dropbox.exe (C:\Program Files (x86)\Dropbox\Client\Dropbox.exe)
Dropbox.exe (C:\Program Files (x86)\Dropbox\Client\Dropbox.exe)
Dropbox.exe (C:\Program Files (x86)\Dropbox\Client\Dropbox.exe)
explorer.exe (C:\Windows\Explorer.EXE)
fa_rss.exe (C:\Users\Belinda\AppData\Roaming\FA\fa_rss.exe)
freepcaudit - Copy.exe (C:\Users\Belinda\Downloads\freepcaudit - Copy.exe)
igfxEM.exe
(C:\Windows\System32\DriverStore\FileRepository\cui_dch.inf_amd64_790c2068
3c3a62ec\igfxEM.exe)
LockApp.exe
(C:\Windows\SystemApps\Microsoft.LockApp_cw5n1h2txyewy\LockApp.exe)
Microsoft.Photos.exe (C:\Program
Files\WindowsApps\Microsoft.Windows.Photos_2021.21090.10007.0_x64__8wekyb3
d8bbwe\Microsoft.Photos.exe)
MusNotifyIcon.exe (C:\Windows\system32\MusNotifyIcon.exe)
node.exe (C:\Program Files\Adobe\Adobe Creative Cloud
Experience\libs\node.exe)
node.exe (C:\Program Files\Common Files\Adobe\Creative Cloud
Libraries\libs\node.exe)
ONENOTEM.EXE (C:\Program Files (x86)\Microsoft
Office\root\Office16\ONENOTEM.EXE)
OUTLOOK.EXE (C:\Program Files (x86)\Microsoft
Office\root\Office16\OUTLOOK.EXE)
QtWebEngineProcess.exe (C:\Program Files
(x86)\Dropbox\Client\133.4.4089\QtWebEngineProcess.exe)
QtWebEngineProcess.exe (C:\Program Files
(x86)\Dropbox\Client\133.4.4089\QtWebEngineProcess.exe)
RtkAudUService64.exe
(C:\Windows\System32\DriverStore\FileRepository\realtekservice.inf_amd64_9
971779a1c712866\RtkAudUService64.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
```

```
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
RuntimeBroker.exe (C:\Windows\System32\RuntimeBroker.exe)
SearchApp.exe
(C:\Windows\SystemApps\Microsoft.Windows.Search_cw5n1h2txyewy\SearchApp.ex
e)
SearchApp.exe
(C:\Windows\SystemApps\Microsoft.Windows.Search_cw5n1h2txyewy\SearchApp.ex
e)
SecurityHealthSystray.exe (C:\Windows\System32\SecurityHealthSystray.exe)
SettingSyncHost.exe (C:\Windows\system32\SettingSyncHost.exe)
ShellExperienceHost.exe
(C:\Windows\SystemApps\ShellExperienceHost_cw5n1h2txyewy\ShellExperienceHo
st.exe)
sihost.exe (C:\Windows\system32\sihost.exe)
smartscreen.exe (C:\Windows\System32\smartscreen.exe)
splwow64.exe (C:\Windows\splwow64.exe)
StartMenuExperienceHost.exe
(C:\Windows\SystemApps\Microsoft.Windows.StartMenuExperienceHost_cw5n1h2tx
yewy\StartMenuExperienceHost.exe)
svchost.exe (C:\Windows\system32\svchost.exe)
svchost.exe (C:\Windows\system32\svchost.exe)
svchost.exe (C:\Windows\system32\svchost.exe)
svchost.exe (C:\Windows\system32\svchost.exe)
svchost.exe (C:\Windows\system32\svchost.exe)
taskhostw.exe (C:\Windows\system32\taskhostw.exe)
Teams.exe
(C:\Users\Belinda\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Belinda\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Belinda\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Belinda\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Belinda\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Belinda\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Belinda\AppData\Local\Microsoft\Teams\current\Teams.exe)
Teams.exe
(C:\Users\Belinda\AppData\Local\Microsoft\Teams\current\Teams.exe)
TeamViewer.exe (C:\Program Files (x86)\TeamViewer\TeamViewer.exe)
TextInputHost.exe
(C:\Windows\SystemApps\MicrosoftWindows.Client.CBS_cw5n1h2txyewy\InputApp\
TextInputHost.exe)
TvUpdateInfo.exe (C:\Windows\TEMP\nsg6D46.tmp\TvUpdateInfo.exe)
UserOOBEBroker.exe (C:\Windows\System32\oobe\UserOOBEBroker.exe)
```

```
WINWORD.EXE (C:\Program Files (x86)\Microsoft
Office\Root\Office16\WINWORD.EXE)
```