



## **RFP Response**

RFP-DH-1335

Enterprise Content Management System

For

The Metropolitan Water District of Southern California



## **Executive Summary Letter**

February 28, 2023

Mr. David Hsi  
The Metropolitan Water District of Southern California  
700 North Alameda St.  
Los Angeles, CA 90012

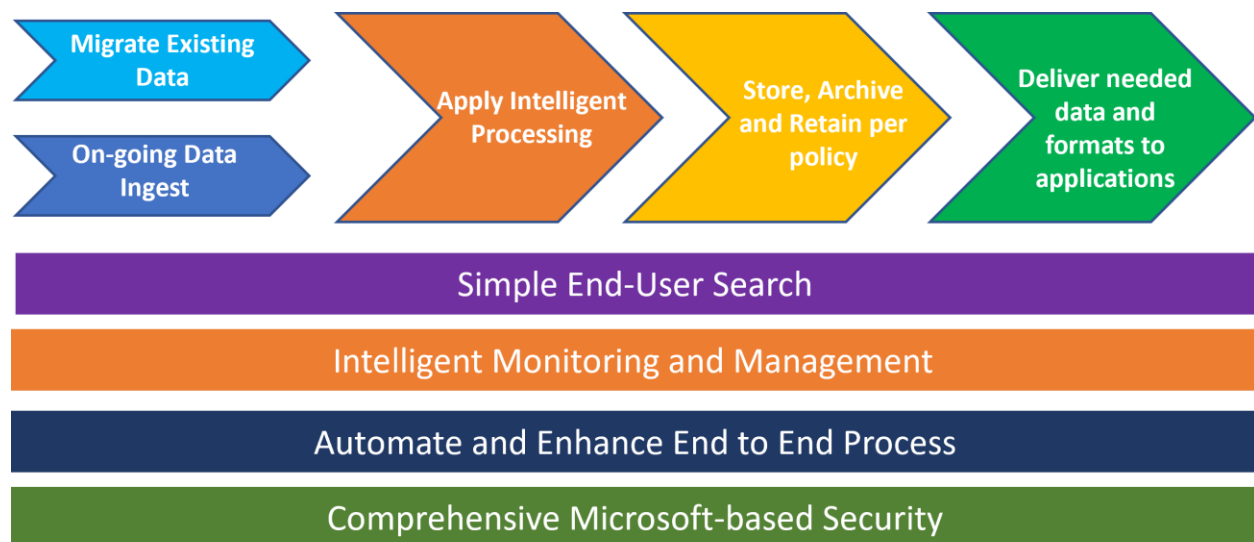
Re: Request for Proposal RFP-DH-1335, Enterprise Content Management System

Dear Mr. Hsi,

NathCorp and our Strategic Partners are pleased to present our response to The Metropolitan Water District of Southern California (Metropolitan) above referenced Request for Proposal.

The combined strengths of our organizations place us in a unique and strong position to deliver a highly functional and reliable Enterprise Content Management (ECM) solution based on Best of Breed, highly rated technologies.

**The NathCorp ECM solution delivers a complete and fully secure environment, enabling Metropolitan to migrate data; manage redundant, obsolete and trivial data; ingest and process new data and apply intelligent processing for meta data creation and categorization, while simplifying management; and allow for simple, robust end-user search across the entire enterprise.**



Our solution delivers:

- **Superior functionality** - The foundation of our IDM solution uses Microsoft SharePoint Online, Microsoft Syntex and various Microsoft Azure components to deliver the required cloud-based functionality. We have also included Best of Breed applications where applicable to facilitate data migration, data archive, email saving to SharePoint, and interactive training.
- **Enterprise-level design and operations** - Resilient enterprise-grade solutions require comprehensive monitoring and management. Our solution includes Microsoft Azure monitoring components to ensure the on-going health of the solution, using native AI capabilities to promote “self-healing” wherever possible.
- **High levels of Security** – we leverage a variety of components of the highly rated Microsoft security suite to ensure appropriate user permissions and access, provide the necessary data classification and governance, and deliver on-going monitoring, alerting and remediation of threats to the overall environment. Our security design builds upon and leverages the existing Metropolitan Microsoft-based identity and security configurations.

- **Open architecture** – the core of our solution integrates standard, off the shelf Microsoft components to deliver the required functionality, avoiding “proprietary lock-in” typically associated with purchased applications. This approach provides the highest possible levels of open design to Metropolitan allowing flexible and low-cost on-going support, and the ability to easily modify the solution as business requirements and regulations change.
- **Extensible and modular design** - discrete solution components can be leveraged to address business problems efficiently without the need to take a “monolithic” approach requiring the use of all solution components.

Our resource and timeline modeling for solution delivery suggests this is a multi-year, multimillion-dollar project. Accordingly, we have included several key Strategic Partners to ensure successful solution delivery.

**Resua.io** – is a certified Disabled Veteran Business Enterprise (DVBE). Our partnership with them allows us to meet or exceed the 25% participation goal.

**Crayon** – will assist in the technical delivery of several of the Key Tasks set out in our response. They are a \$2.5 billion publicly traded company with deep Microsoft and Enterprise Content expertise.

**Brainstorm** – creates innovative personalized software and content for user training, driving high levels of user adoption and simplifying user transition related to a major system implementation or application change.

**ProvenTeq** – will provide the software tools to assist in migration of existing data to the new ECM solution.

**AvePoint, MacroView**– will provide the archiving (AvePoint), and the saving email to SharePoint (MacroView) function and data migration (ProvenTeq) respectively.

We believe our solution delivers high value to Metropolitan, leverages key new and advanced technologies for efficiency, and provides an extensible and modular platform to change and grow as business needs dictate. Our solution takes a non-traditional approach to document imaging and applies an “Intelligent Document Processing” framework, resulting in significantly lower implementation and operating costs, and greater functionality while delivering high business value to Metropolitan.

We appreciate the opportunity to provide a solution for Metropolitan’s ECM requirements.

For questions or comments on the RFQ, please contact the undersigned.

Sincerely,



Simon Palmer  
 Managing Director  
 Mobile: 714/ 615-6051  
 Email: [simon.palmer@nathcorp.com](mailto:simon.palmer@nathcorp.com)

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## **Minimum Qualifications**

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### *Minimum Qualifications*

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NathCorp and our strategic partners collectively represent over 100 years of technology experience in our respective fields of expertise. We are compliant with and exceed both listed minimum requirements as listed below as well as demonstrated in Attachments H, I, “Firm Qualifications” and other sections of this proposal.

Principals/key personnel, including sub-consultants, have been established providers of the type of services required by the scope of services for at least five (5) years and NathCorp was established in 2007 and exceeds 5 years in providing the type of services required by the scope of services.

<b>Contractor and Location</b>	<b>Type</b>	<b>Services provided</b>	<b>Date Est.</b>	<b>Notes</b>
NathCorp, Irvine CA (SBE, RBE)	Prime	All other services	2007	Founded by Raj Nath former Microsoft Windows architect of Active Directory. Nathcorp Consultants average 12yrs Experience in technologies related to this proposal. Nathcorp currently holds 13 MS Gold Competencies + Microsoft CSPP Member.
Resua.io, Anaheim, CA (SBE, DVBE)	Sub-consultant	Program Management and Implementation Services	2022	Founded by David Hook, 13 years’ experience in AI/ML @ the Dept. of Veterans Affairs
Crayon, Dallas, TX	Sub-consultant	Implementation Services	2002	Microsoft Global AI Partner of the Year 2020
Brainstorm, American Fork, UT	Sub-consultant	End user training program	1995	Globally recognized award-winning training services company with a world-class SaaS platform
AvePoint, Jersey City, NJ	Sub-consultant	Data Archiving Application	2001	Provider of the most advanced platform to optimize SaaS operations and secure collaboration. More than 9 million Current cloud users on their solutions via more than 100 cloud marketplaces
MacroView, Sydney, Australia	Sub-consultant	Email Saving Application	1994	Global winner of the Innovative Search Solutions Contest and the National Winner of the Microsoft Office Smart Client Solutions Challenge
ProvenTeq, Austin, TX	Sub-consultant	Data Migration Application	2007	Experts in Intelligent Content Management and Cloud Office Solutions. Microsoft CSPP Member and currently holds 4 MS Gold Competencies.



## **Firm Qualifications** **(Criteria One)**

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## Firm Qualifications

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### Our History

Established in 2007, NathCorp is a boutique consultancy focused on implementation, operations management and application development across the Microsoft Technology stack. We hold a total of thirteen Microsoft Gold competencies illustrated by the graphic below.

Additionally, we are a member of the Microsoft Content Services Provider Program (CSPP). Membership in this program is by invitation only from Microsoft and comprises a small group of elite Partners focused on Electronic Content Management using Syntex, Viva Topics, Purview, Microsoft Search and Graph, as well as other important Microsoft content management technologies.



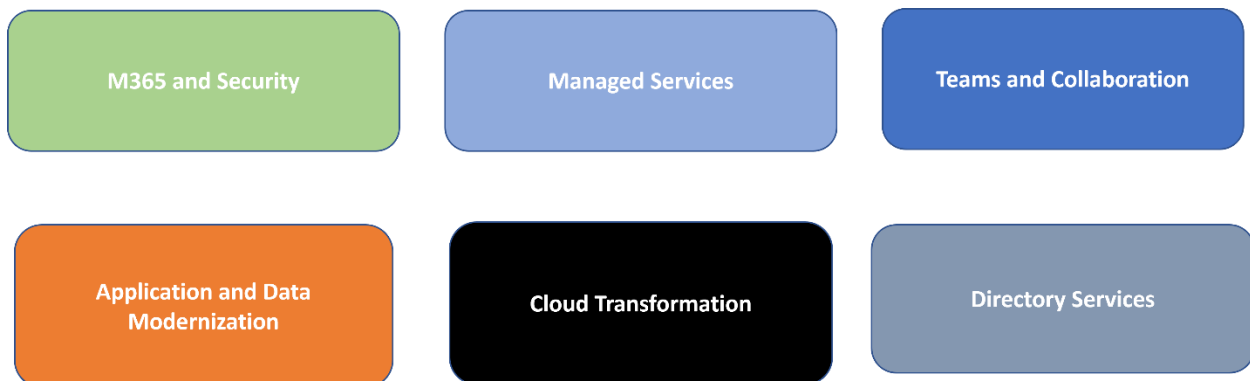
Our staff comprises US-based and offshore employees with an average of 12 years' experience in Microsoft technologies, and over 1,000 combined individual certifications across the team. Many of our employees are former Microsoft team members and have deep experience in managing and delivering large, global, multimillion dollar consulting projects.

Our founder, Raj Nath, is a former Microsoft engineer and the original architect of Active Directory. Mr. Nath leads with a focus on deep technical knowledge and skills and prides himself on keeping the team skilled in cutting-edge technology. Our technical team is organized around various Centers of Excellence (COE) to focus resources on key technologies, explore new and innovative uses of technology, and promote company-wide knowledge and understanding of the technology.

The COEs also focus on aligning technology with business Use Cases and conduct Proofs of Concept and Pilots to demonstrate how new and innovative technology can be applied to solve client business problems.

### Our Practices

We deliver our expertise to the marketplace via six consulting practices as follows.



Our expertise and product focus covers the following for each practice.



## Our Clients

NathCorp clients are enterprise level clients across 5 verticals. Our average client has been with NathCorp for over 7 years, and we have performed multiple projects for each of these clients. We focus on developing long-term relationships with a focus on continued improvement and transparency; we understand and acknowledge we must, at all times, work to earn a client's trust – whether they be a new client or a 10-year client – using the values below to guide our daily behaviors.



The graphic below sets out a sampling of our clients by vertical.



The table below is a sampling of projects we deliver for our clients and demonstrates our ability to continue to provide value-based services to our clients.

Client	Projects	Approximate Revenues, Approximate Employee Count, Relationship Length
Publicly traded manufacturer of construction, agricultural and mining equipment	<ul style="list-style-type: none"> <li>Development of global (multi-lingual) dealer / farmer portal for delivery of machine health reports "on demand"; includes data analysis, data lake creation and management, development of portal APIs, Power BI report development and delivery</li> </ul>	<ul style="list-style-type: none"> <li>\$25 billion revenues</li> <li>6,500 employees</li> <li>1-year relationship</li> </ul>

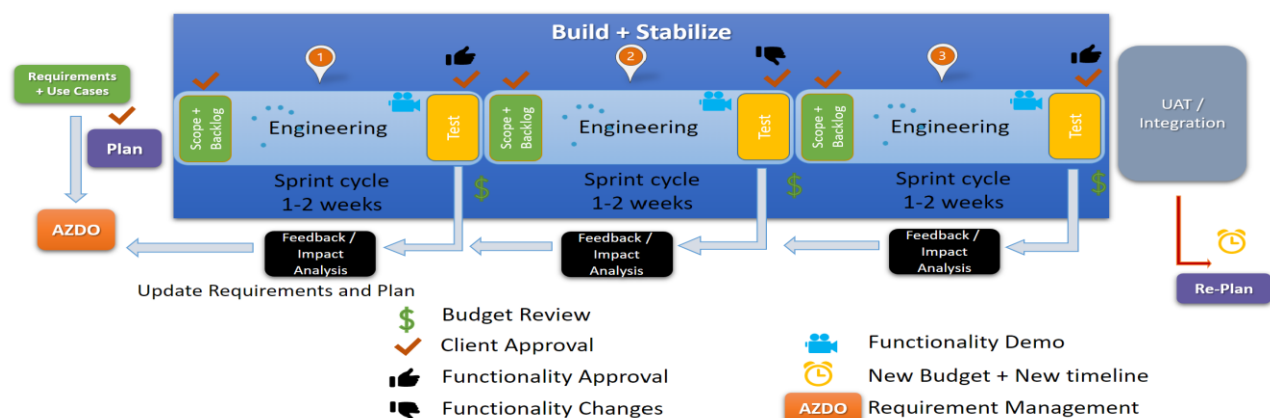
Client	Projects	Approximate Revenues, Approximate Employee Count, Relationship Length
Publicly traded medical device manufacturer	<ul style="list-style-type: none"> <li>Application packaging and distribution services for Windows</li> <li>Hyperion / Oracle financial application upgrades distribution</li> </ul>	<ul style="list-style-type: none"> <li>\$5 billion revenues</li> <li>14,000 employees</li> <li>6-year relationship</li> </ul>
Provider of e-library books	<ul style="list-style-type: none"> <li>Managed services for the entire Azure-based environment for e-library on demand program</li> <li>Architecture assistance, development and enhancement of e-library application</li> </ul>	<ul style="list-style-type: none"> <li>Private equity owned – do not disclose revenues</li> <li>2,500 employees</li> <li>12-year relationship</li> </ul>
Large national insurance company	<ul style="list-style-type: none"> <li>Company-wide AD upgrade</li> <li>Company-wide SCOM upgrade</li> <li>Company-wide Teams implementation</li> <li>Company-wide migration of on-premise email to Exchange online</li> </ul>	<ul style="list-style-type: none"> <li>Privately held – do not disclose revenues</li> <li>16,000 employees</li> <li>6-year relationship</li> </ul>

### Our Delivery Model

Our Focus is Delivery Value, driven by the following tenets.

- **Rapid demonstration of Value Add is vital** – we align delivery with customer expectations to quickly achieve an MVP early in the project.
- **Every project is dynamic** – requirements, timeline, risks and priorities will continue to change during the project. Our “Value Loop” approach ensures we continuously monitor and adjust to project changes.
- **Projects succeed with transparency and communication** – we partner with our clients to ensure there are “no surprises” at any time and ensure transparency with the use of tools such as Azure DevOps for task tracking, weekly burn down reporting, and weekly project status reporting – along with ongoing risks or issues identification and monitoring.
- **Bad news does not age well** – every project will experience challenges; these must be declared and quickly addressed with a remediation plan to ensure continued project progress.

The NathCorp Value loop model is shown below.



**Record of Past Performance**  
**(Criteria Two)**

## Past Performance

The table below summarizes various projects delivered to clients over the last 2-3 years.

Client	Project
Western Digital	<ul style="list-style-type: none"> <li>•Global AD upgrade</li> <li>•Global SharePoint Online Platform build and roll out</li> <li>•Global Workspace One replacement</li> <li>•Windows Hello / Password-less Pilot</li> <li>•Team Healthcheck</li> <li>•Mail Healthcheck</li> <li>•SCCM Managed services</li> <li>•ADDs implementation</li> </ul>
3M	<ul style="list-style-type: none"> <li>•200+ application development and modernization projects</li> <li>•Managed services (server administration) for approximately 400 Windows and LINUX servers</li> </ul>
Hawaiian Airlines	<ul style="list-style-type: none"> <li>•Implementation of “Electronic Flight Bag” (EFB) across entire aircraft fleet</li> <li>•Managed services for 1,000+ pilots to support on-going EFB usage and updates</li> <li>•\$15 million, 5-year project</li> </ul>
CNHI	<ul style="list-style-type: none"> <li>•Development of global (multi-lingual) dealer / farmer portal for delivery of machine health reports “on demand”; includes data analysis, data lake creation and management, development of portal APIs, Power BI report development and delivery</li> </ul>
Edwards Lifesciences	<ul style="list-style-type: none"> <li>•Application packaging and distribution services for Windows</li> <li>•Hyperion / Oracle financial application upgrades distribution</li> </ul>
Bibliotheca	<ul style="list-style-type: none"> <li>•Managed services for the entire Azure-based environment for e-library program</li> <li>•Architecture assistance, development and enhancement of e-library application</li> </ul>
Universal Music Group	<ul style="list-style-type: none"> <li>•Global AD upgrade</li> <li>•Replacement of Quest ARS application with custom-built application to receive user management requests from SNOW</li> <li>•Managed services Tier 2 24x5 support for AD, email, and user management (ad/modify/delete, reset PW)</li> <li>•Bitlocker implementation</li> </ul>
Auto Club	<ul style="list-style-type: none"> <li>•Company-wide AD upgrade</li> <li>•Company-wide SCOM upgrade</li> <li>•Company-wide Teams implementation</li> <li>•Company-wide migration of on-premise email to Exchange online</li> </ul>

The following may be contacted for reference on NathCorp services.

### **Hawaiian Airlines – Enterprise Content Management for Aircraft and Pilots**

3375 Koapaka St, Suite G350, Honolulu, HI 96819

Ken Rewick – Vice President of Flight Operations (Retired)

Mobile: 808/ 228-9643

Email: [ken.rewick@hawaiianair.com](mailto:ken.rewick@hawaiianair.com)

Number of years NathCorp client – 7 years (2014 – 2021)

Hawaiian Airlines (HA) is the largest operator of commercial flights from the continental United States to Hawaii. They operate a fleet of approximately (60) aircraft and serve over (100) destinations worldwide.

NathCorp was contracted with Hawaiian to implement Electronic Flight Bag (EFB) Content Management as part of HA's eFlie program – a broader cockpit connectivity initiative. HA is the first airline in the world to have real-time, IP-based cockpit connectivity (via satellite) isolated completely from any passenger compartment network communications.

The overall goal of HA's EFB program was to eliminate the need for paper manuals to be carried by pilots and remove the duplicate manual set from each aircraft – this resulted in saving over \$1 million annually in fuel cost (achieved by removing approximately 400 pounds in weight from each flight), eliminating the need for resources to continually update manuals in each aircraft, and eliminating the need for pilots to be continually concerned about ensuring flight manuals were up to date – typically, flight manuals and flight communications are issued several times per week. All goals needed to be achieved while also ensuring 100% compliance with FAA regulations; HA was subject to inspection at any time by an FAA inspector and, if their manuals were found to be non-compliant (out of date, or not enough copies on the aircraft), they would not be allowed to fly the aircraft, costing HA approximately \$300-\$400,000 per incident.

Additionally, HA moved from manual flight navigation charts to EFB-based navigation charts.

NathCorp provided a variety of services to HA as part of the EFB program.

- We delivered an EFB as a Service (EFBaaS) program to HA which included the distribution and management of 2,000 Microsoft Surface devices to their entire pilot community. We provided Tier 2 24x7 support and created and managed the necessary environment to ensure the domain was isolated for security purposes and remained compliant at all time with not only FAA requirements, but also key HA security requirements to ensure any part of the ecosystem (tablet, satellite connection, cockpit connection, etc.) could not be hacked, regardless of location. In the event a pilot device was suspected of compromise, we immediately wiped the device and disconnected it from the network to always ensure ecosystem integrity.
- We developed the NathCorp "DocSync" application to distribute flight manuals, flight manual updates and various Flight Operations communications to approximately 2,000 pilots located worldwide. We were able to distribute and track a variety of file formats including pdf, exe, tif and other file types. Critical functional components of the application included:
  - The ability to report real time status of both the tablet and the manual set contained on the tablet to ensure FAA compliance
  - The ability to refresh manual updates or manual sets in the event of accidental deletion by the pilot
  - The ability to automatically monitor for a device "online" and distribute manual updates as necessary to ensure compliance; this included the ability to alert on non-compliant devices
  - The ability to ensure manual updates were NOT applied during critical phases of flight, risking lack of tablet availability for navigation charts, airport maps, etc. We used a connection to the aircraft data bus to sense "weight on wheels" and "door closed" and pass this status to the DocSync agent on the tablet to temporarily suspend updates and always ensure tablet availability during flight, while preserving the tablet's ability to maintain and active IP-connection during flight and receive dispatch updates, upper air updates for flight path optimization, etc.



- We integrated with HA's Dispatch system to deliver electronic flight plans to the designated Captain and First Officer for a particular flight two hours prior to takeoff. This included acquiring the flight plan from the dispatch system and converting the plan to a separate format for ingest by the tablet's navigation application and was a time critical function requiring error free delivery of the flight plan to ensure there was no flight delay. Our process included tracking and validation of flight plan integrity at all steps.
- We worked with HA and a German software company to integrate real time flight path tracking to optimize fuel consumption and passenger comfort. Pilots were able to request flight path deviations from air traffic control to reduce fuel consumption. Fuel savings were estimated at over \$2 million per year.
- When the COVID-19 pandemic hit in early 2020, HA was significantly impacted. Although under no legal or contractual obligation to do so, NathCorp worked with HA to modify our contractual agreements to accommodate the drastic change in their business.

### **Western Digital Corporation – Worldwide SharePoint Online implementation for 30,000+ Users**

3355 Michelson Dr., Irvine, CA 92612

Dave Schira – Global Head of Infrastructure Services, Architecture and Automation (Mr. Schira left Western Digital in January 2022)

Mobile: 503/ 709-7492

Email: [dave@14ourfamily.com](mailto:dave@14ourfamily.com)

Number of years NathCorp client – 6 years (2016 – present)

Western Digital (WD) is a publicly traded manufacturer of computer storage with annual revenue of approximately \$19 billion and 65,000 worldwide employees.

NathCorp has engaged on a variety of projects for WD, including the following:

- Enterprise build of worldwide SharePoint Online (SPO) platform. WD migrated from Jive to SharePoint and NathCorp was chosen to provide all the necessary design and implementation services to provision a SPO platform to support 30,000 – 40,000 active users globally. We conducted discovery meetings and workshops, defined and documented requirements, and built and tested the platform to ensure its ability to scale to the desired user count, and ensure the design reflected the level of availability required by the global user community. A key focus of our work was to ensure the appropriate information architecture and governance was in place so WD would not experience the current site "sprawl" it had in the Jive environment. We also designed, configured and implemented environment governance using the Desired State Configuration (DSC) from Microsoft as the foundation for monitoring, managing and approving configuration changes. Authorized changes were processed via an Azure DevOps process focused on "configuration as code" and any unauthorized changes were identified and automatically returned to their prior state by DSC monitoring – the necessary stakeholders were notified of the incident and a full and complete audit log was established and maintained by DSC, including information on administrators making the changes.
- Worldwide Active Directory (AD) upgrade. This was our first engagement with WD and has been compared to "changing the engines in flight" – upgrades were made to an active production AD environment, many times during working hours due to the global nature of WD's business. The upgrade was achieved with zero downtime and many of the services were automated to make implementation more efficient (EG: AD server build was completely automated and took 5-10 minutes). This approach required meticulous preparation and extensive testing to ensure no impact to the production environment and NathCorp provided all services for these tasks. Finally, the Forest Functional Level was raised with no impact to the organization.
- Replacement of VMWare WorkSpace One with Microsoft Intune and related products. This project focused on taking approximately 16,000 mobile users from WorkSpace One to Intune; WD was using WorkSpace One for both SSO and device management. The key challenge was designing a migration plan to allow 16,000 users and approximately 400 applications to co-exist during the migration period – approximately 4 months – while also ensuring a key calendar deadline was met to allow WD to avoid a large license renewal expense.

- Enterprise mail system health check and remediation. WD has grown their business significantly by acquisition. Many of these acquisitions were allowed to exist separately from the primary WD mail domain. NathCorp was engaged to perform a health check of the overall mail environment, including a focus on email security and SPF record integrity. We identified (75) key improvement items across (5) focus areas requiring attention and prioritized each improvement item for risk to the business and overall impact. Several of the improvement items were immediately implemented to ensure WD's mail environment was secure and appeared "clean" to external companies and users.

## **Universal Music Group (UMG)**

2100 Colorado Ave, Santa Monica, CA 90404

Greg Corgain, Vice President – Technology Infrastructure

Mobile: 626/ 644-3885

Office: ` 818/ 286-6808

Email: [Greg.corgain@umusic.com](mailto:Greg.corgain@umusic.com)

Number of years NathCorp client – 6 years (2016 – present)

UMG – "The World's Leading Music Company" is the largest music company in the world and has recently been taken public. The company has approximately 4 million owned and administered titles, manages 250 artists and brands and owns 50 music labels. Their stock is traded under the symbol UMG.AS and their annual revenues are approximately \$9 billion.

NathCorp has provided a variety of services to UMG, including:

- Global Active Directory (AD) upgrade (2016) – services were provided across the globe to upgrade the entire UMG AD infrastructure to the latest version; UMG incurred no downtime as part of this upgrade.
- Quest Active Roles Server (ARS) replacement (2017) – UMG was running an older version of ARS and facing a large license upgrade charge for a product they planned to obsolete. NathCorp developed an interim replacement application – Attribute Compliance and Reporting Application (ACRA) – to provide key services such as user creation, modification and deletion. ACRA acted as middleware between ServiceNow (SNOW) and Active Directory, taking automated user and account creation requests from SNOW, validating key components of the data provided, and taking the necessary actions in AD – a web-based user interface was also made available for manually entry, when needed. We created a SharePoint based user-maintained Rules Engine to allow UMG to adapt ACRA functionality as business rules changed to ensure they were not required to pay NathCorp to implement changes. ACRA also created the necessary transaction logs to satisfy audit and compliance requirements and fed those logs to Splunk as needed. The ACRA tool was originally planned as an interim solution for 6-12 months; the tool ran for over 5 years with over 99.5% uptime.
- Tier 2, 24x5 Active Directory, Messaging and Access Management (2017 – ongoing)– NathCorp provides a set of offshore resources to provide global 24x5 support to manage approximately 150 daily incidents and tasks across multiple time zones and for all UMG offices and users. We monitor performance weekly against SLAs and meet weekly with the UMG operations team to discuss tickets, identify issues or opportunities for improvement, etc. As part of this service, we also provide "White Glove" services to a group of (12) key executives, including their Chairman and CEO. Our typical response time to White Glove requests is less than 5 minutes, with resolution in 10-15 minutes, regardless of if the request is made during contracted coverage hours or during our on-call (weekend) hours.
- We have also conducted a variety of smaller projects for UMG including tenant to tenant email migrations, Contingent Worker password resets (involved working with approximately 3,000 Contingent Workers to reset their passwords), Service Account password resets (approx. 1,000 accounts), etc.

## **3M Corporation**

Maplewood, MN

Paul Pottorff, Senior Cloud and DevOps Architect

Mobile: 206/ 992-7749

[Paul.pottorff@gmail.com](mailto:Paul.pottorff@gmail.com)

Number of years NathCorp client – 10 years (2012 – present)

3M is a publicly traded manufacturer with revenues of approximately \$35 billion and 95,000 employees worldwide.

NathCorp was engaged to provide offshore application development and Managed Services to 3M's Digital Product Center of Excellence (DPCOE) team in support of application development and enhancement for multiple 3M business units; 3M realized over 3X productivity rate as compared to US-based resources and costs. Highlights of this long-term engagement include:

- Over (20) applications developed, including critical SafeGuard product authentication application (used on over 2 million 3M products monthly)
- Over (35) applications enhanced and supported

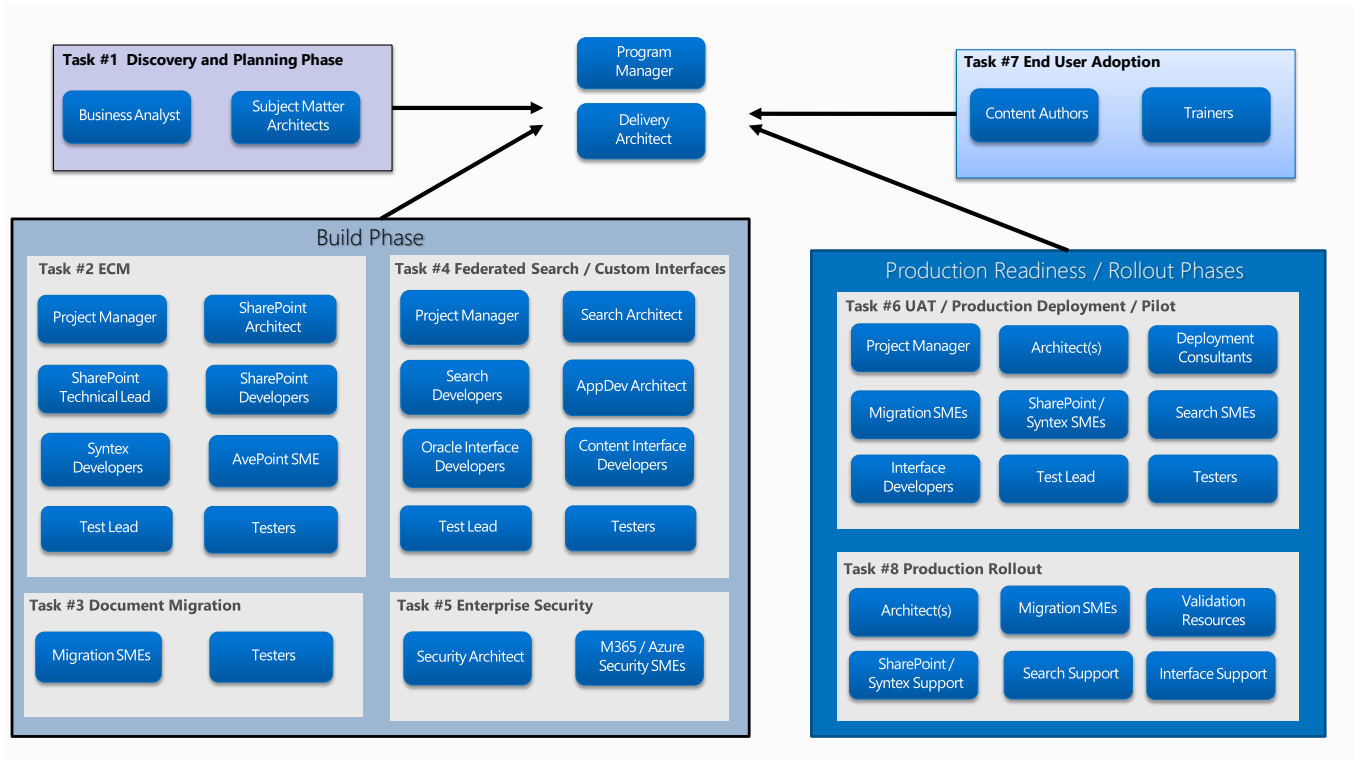
The SafeGuard product authentication application uses a complex algorithm to create unique identifying keys applied to 3M products to ensure authenticity and fight counterfeit product entering the market from various offshore manufacturing sites. The application is integrated with their entire SAP environment and deployed in (19) plants globally. 3M estimates direct savings of over \$5 million annually in counterfeit product identification, not including the value of reputation protection. See also as an example:

[Over 65K Counterfeit 3M Masks Seized in Chicago | U.S. Customs and Border Protection Preview \(cbp.gov\)](#)

**Key Personnel and Staff**  
**(Criteria Three)**

## 1.1 NathCorp Program Management Organization Chart

Below is the NathCorp Program Management Organization Chart that maps the resource plan to the Delivery Tasks identified in the Proposal.



## 1.2 NathCorp Roles and Responsibilities to support Metropolitan's ECM Implementation

Role	Responsibilities
<b>Program Manager</b>	<p>Primary point of contact for the Metropolitan team</p> <p>Responsible for managing and coordinating the overall project delivery working with the assigned Metropolitan Project Manager</p> <p>Coordinates and communicates with Metropolitan PM to facilitate workshops, meetings, etc.</p> <p>Develops and owns the detailed master project plan.</p> <p>Owens status reporting, tracking issues and risks; conducts weekly status meetings.</p> <p>Contributes communications to Metropolitan stakeholders; conducts monthly stakeholder meetings.</p> <p>Responsible for resource allocation, risk management, project priorities, and identifying resource needs.</p> <p>Jointly works with assigned NathCorp project managers assigned to deliver the scope identified in specific Delivery Tasks to ensure alignment with the master project plan, schedule, etc.</p>
<b>Project Managers</b>	The primary point of contact assigned to specific delivery Tasks.

	<p>Manages day-to-day activities of the NathCorp resources assigned to the Task.</p> <p>Develops and manages the detailed project plan for the assigned Task.</p> <p>Coordinates the activities of the NathCorp Team to deliver deliverables according to the overall program schedule.</p> <p>Responsible for resource allocation, risk management, project priorities, and communication for the assigned Task</p> <p>Coordinates the activities of the team working with the Program Manager and Delivery Architect to deliver the deliverables according to the project schedule</p>
<b>Delivery Architect</b>	<p>Serves as primary point of contact for Metropolitan architectural and technical resources.</p> <p>Provides overall technical design quality for the ECM Solution</p> <p>Reviews technical designs and implementation.</p> <p>Works with the Subject Matter Expert Architects to align on the technical solution and to resolve technical issues.</p> <p>Identifies and documents technical risks and issues.</p> <p>Serves as an escalation point for technical decisions or issues.</p> <p>Identifies and communicates recommended patterns and practices to the ECM Delivery Team</p>
<b>Business Analyst</b>	<p>Drives and documents business, functional, and non-functional requirements.</p> <p>Facilitates requirements discussions with Metropolitan's business and technical SMEs.</p> <p>Works with both NathCorp Architects and Metropolitan team to confirm the Minimum Viable Product to be released as Phase 1 for the production ECM Solution.</p>
<b>SharePoint Architect</b>	<p>Owens and develops the Technical Architecture for the ECM Solution</p> <p>Will provide technical oversight and QA over the solution being developed.</p> <p>Help provide activities and work products that are related to the ECM Solution.</p>
<b>AvePoint Storage Architect</b>	<p>Leads technical activities related to SharePoint / Azure Blog Archiving requirements.</p> <p>Puts together the archive / storage architecture.</p> <p>Validates architecture meets requirements in test environment.</p> <p>Leads the production storage deployment solution</p>
<b>SharePoint Technical Lead</b>	<p>Works with Architect on requirements and architecture/design activities related to ECM and SharePoint</p> <p>Manages day-to-day development activities related to SharePoint.</p> <p>Participates in test case reviews related to SharePoint.</p>

	<p>Oversees quality assurance (QA) of the technical deliverables from the development team related to SharePoint.</p> <p>Assures team follows defined process and standards.</p> <p>Reviews UAT scenario and ensures alignments</p>
<b>SharePoint Consultants</b>	<p>Performs technical configuration activities in SharePoint in support of the features and releases in scope for the project.</p> <p>Resolves configuration issues</p>
<b>Syntex Consultants</b>	<p>Performs Syntex OOB configuration / ML activities in support of the features and releases in scope for the project.</p> <p>Resolves issues</p>
<b>Workflow Consultants</b>	<p>Implements customized workflows using Power Automate / Power Apps configuration activities in support of the features and releases in scope for the project</p> <p>Assigned to support the POC</p>
<b>Document Migration Consultants</b>	<p>Owns the migration of content from Metropolitan's content sources to SharePoint Online</p> <p>Configures with the migration tool to assess all documents in current content sources and builds a centralized content inventory to track changes.</p> <p>Identifies risks for potential documents that may have migration issues.</p> <p>Performs the migration of documents and associated metadata to SharePoint Online</p>
<b>Azure Search Architect</b>	<p>Owns and develops the Technical Architecture for the Federation Search Solution</p> <p>Will provide technical oversight and QA over the solution being developed.</p> <p>Help provide activities and work products that are related to Federated Search</p>
<b>Azure Search Developers</b>	<p>Performs development activities in support of the features and releases in scope for the project.</p> <p>Resolves search / application issues</p>
<b>Application Architect (Interfaces)</b>	<p>Owns and develops the Technical Architecture for the Custom Interfaces to Metropolitan's Content Sources</p> <p>Works with the Federated Search Architect to ensure alignment with interface specs to meet search requirements.</p> <p>Will provide technical oversight and QA over the solution being developed.</p> <p>Help provide activities and work products that are related to Custom Interface development</p>
<b>Lead Developer (Azure) Interfaces</b>	<p>Coordinates technical activities related to Azure technologies.</p> <p>Works with Architect on requirements and architecture/design activities related to Azure technologies.</p>

	<p>Manages day-to-day development activities related to Azure technologies.</p> <p>Participates in test case reviews related to Azure technologies.</p> <p>Oversees quality assurance (QA) technical deliverables related to Azure technologies.</p> <p>Builds master to manage various builds.</p> <p>Assures team follows defined process and standards.</p> <p>Reviews UAT scenarios</p>
<b>Azure Interface Developers</b>	<p>Performs development activities in support of the features and releases in scope for the project.</p> <p>Resolves application issues</p>
<b>Test Leads</b>	<p>Develops and owns the testing strategy for the various Tasks.</p> <p>Conducts tests to accurately determine the status of the solution development.</p> <p>Signs-off on when the solution meets specification requirements</p>
<b>Testers / Validation</b>	<p>Performs integration and component testing.</p> <p>Helps development team reproduce bugs/debugging.</p> <p>Provides support for the Test Lead providing clarifications/ coordinating with NathCorp development team</p>
<b>Security Architect</b>	<p>Owns and develops the Technical Architecture to support the ECM Enterprise Security Architecture</p> <p>Regularly meets with Metropolitan Security Team to ensure alignment with the architecture and security configuration settings deployed in M365 and Azure.</p> <p>Continually meets with the SharePoint, Search and Application Architects to align and confirm security to be implemented in support of the ECM solution and that security specific configuration is implemented.</p> <p>Will provide technical oversight and QA over the solution being developed.</p>
<b>Security Subject Matter Experts</b>	<p>Performs configuration activities in support M365 / Azure security for the features and releases in scope for the project.</p> <p>Resolves technical related issues with security</p>
<b>Deployment Consultants</b>	<p>Manages the build process for deployment.</p> <p>Creates deployment scripts /packages where deployment automation can be automated.</p> <p>Documents the ECM Deployment</p>
	<p>Works with the test team to ensure that the ECM production solution has been implemented correctly</p>



## **Professional Summary**

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Eric is an experienced technical manager, solution architect, application programmer, analyst and team leader who has helped businesses realize the full value of their application development and information systems investments. He has a passion for innovative technologies and how those technologies can be best leveraged to create compelling applications that help companies achieve their core business objectives.

- 30-year track record of systems management, application development and product management
  - Identify needs and define relevant/optimal solutions
  - Generate requirements documents including both functional and technical specifications.
  - Lead and support presentation of solution architectures to obtain buy-in and move forward.
  - Work with and lead application development teams to deliver documented solutions and ensure those solutions meet the business needs.
  - Project management and oversight to properly set and manage expectations and ensure delivery.
  - Provided ongoing support of the solution to insure it meets business needs and coordinated with ongoing application maintenance teams as well as managed in context of effective software development lifecycle to phase business needs into proper development stages that optimize resources and outcomes.
  - Work with sales and pre-sales teams to develop statements of work and proof of concepts
- Strong analytical and problem-solving capabilities that apply innovative solutions to solve problems
- Strong expertise working in a Microsoft .NET development environment, Azure, SDLC tools and enterprise databases.
- Strong expertise designing and developing scalable, performant, extensible and stable cloud and on premises solutions
- Strong expertise as a Digital Workplace Architect with responsibilities to design and develop enterprise solutions on top of platforms such as Office 365, SharePoint Online and SharePoint on-premise, Nintex, Box.com, Slack, Microsoft Azure, Amazon Web Services, Google Cloud and Power Automate (Flow) and Power Apps.
- Demonstrated success defining and launching software products at a high level.
- Diverse experience across multiple industries and functional application development areas
- Track record of success in demanding and fast paced consultative environments
- Strong project management skills including both traditional waterfall and SCRUM/AGILE methodologies
- Strong leadership skills in leading development teams, working with executive management, coordinating third parties, and managing customer needs and expectations

- Enjoy/Prefer entrepreneurial environments
- Exceptional verbal, written and presentation skills

## **Professional Experience**

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**Resua.io, Anaheim, CA**  
**Chief Technology Officer**

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March 2022 – Present

**Responsibilities:**

- Understand the short and long-term technology needs of the organization
- Develop roadmaps aligned with company goals and timelines for research and development
- Monitor KPIs and IT budgets to assess technological performance
- Verify all technological practices adhere to regulatory standards and compliance
- Identify and implement innovative technologies and processes that yield competitive advantage including AI
- Scale engineering capacity through hiring and partnering leveraging long-term relationships
- Responsible for implementing and monitoring security & compliance
- Manage vendors & technology contracts
- Team building and mentoring. Recognizing accountability, creativity and risk taking
- Supervise system infrastructure to ensure functionality and efficiency
- Build quality assurance and data protection processes
- Capitalize on stakeholders' feedback to advise on necessary improvements and adjustments

**NathCorp/Auto Club, Irvine, CA**  
**Microsoft 365 Architect/Technical Project Manager**

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December 2021 – Present

**Responsibilities:**

- Migrate 21,000 Exchange mailboxes to Exchange Online
- Lead on-shore and off-shore teams
- Primary point of contact with Auto Club
- Architect Intelligent Document Processing solution for large health insurance carrier using Microsoft SharePoint, Microsoft Syntex, Azure Forms Recognizer and Azure Cognitive Search

**NathCorp/Western Digital, Irvine, CA**  
**Microsoft 365 Architect/Engagement Manager**

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April 2021 – December 2021

**Responsibilities:**

- SharePoint Online Security and Compliance processes and implementation
- Lead on-shore and off-shore teams
- Primary point of contact with Western Digital
- Implement Configuration as Code using Microsoft365DSC

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**ThreeWill, Alpharetta, GA**  
**Sr. Consultant**

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June 2020 – February 2021

**Responsibilities:**

- Design and develop SPFx web parts
- Help with the PwC migration from Jive to SharePoint Online
- Help with the CVS/Aetna Unily to Unily Migration

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**PIMCO, Newport Beach, CA**

August 2012 – January 2020

**Collaboration Platform Lead, SharePoint Architect, Digital Workplace Lead**

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**Responsibilities:**

- Design, develop, and implement Microsoft based applications and solutions across various enterprise needs including:
  - Business Process Automation
  - Electronic Form Design and Development
  - Workflow Design and Development
- Atlassian Confluence (on-prem) Platform Lead
- Atlassian Jira (on-prem) Platform Lead
- Box.com Global Platform Lead
- Slack Global Platform Lead
- Meet with business users to understand application needs and requirements
- Solution Architecture design
- Application Development
  - Custom workflows and workflow actions
- SharePoint Environment Architecture, Implementation and Administration
- Software Development Life Cycle Process management
- Train application developers, administrators, citizen developers/power users
- Work with CTO & senior leadership on product and technology roadmap
- Office 365 administration & support
- Azure AD administration & support

Primary Projects		Environment
1	Inventory Management	Azure
2	Charitable Contributions	SharePoint, Nintex
3	Political Contributions	SharePoint, Nintex
4	Out of Office Request	SharePoint, Nintex
5	Compliance Marketing Reviews	SharePoint, C#, InfoPath
6	Cash Transfers	SharePoint, C#, InfoPath
7	Global Meeting Requests	SharePoint, Nintex
8	SharePoint Site Requests	SharePoint, C#, ASP.NET
9	Anti-Money Laundering Notifications	SharePoint, Nintex
10	SharePoint Calendar Reminders	SharePoint, C#, Nintex
11	Anti-Alert Solution	SharePoint, C#
12	Technology, Funds & Solution Department Intranets	SharePoint
13	Technology Device Requests	SharePoint, Nintex

14	Trading Certifications	SharePoint, Nintex
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**A.C.T.O**, Huntington Beach, CA  
**Owner / Architect / Trainer**

Aug 2007 – Present

**Responsibilities:**

- Design, develop, and implement Microsoft based applications and solutions across various enterprise needs including:
  - Business Process Automation
  - Electronic Form Design and Development
  - Workflow Design and Development
  - Intranet Design and Development
  - Azure Cognitive Services, Forms Recognizer & Computer Vision
- Meet with business users to understand application needs and requirements
- Solution Architecture design
- Application Development
- Software Development Life Cycle Process management

Projects/Responsibilities		Environment
1	Accounts Payable Processing	Azure, SharePoint Online
2	SharePoint Migration	SharePoint
3	Colony Intranet Development	SharePoint, C#
4	Charles Drew Intranet & CRM Integration	SharePoint, C#, MS CRM
5	Wildermuth Environment Remote Data Capture	ASP.NET
6	Sunrise Mgmt. Intranet Development	SharePoint, C#
7	SynerMed Intranet Development	SharePoint, C#
8	SAG SharePoint Migration & Development	SharePoint, C#
9	Disney Intranet	SharePoint, C#
10	IamResponding.com	ASP.NET

**Partial Client List:**

- |                              |                                         |                               |
|------------------------------|-----------------------------------------|-------------------------------|
| • Bamert Seed                | • SynerMed                              | • Toyota                      |
| • Wilshire Associates        | • University of California Irvine       | • Venice Consulting Group     |
| • PIMCO                      | • Screen Actors Guild                   | • iCrete / Pacific Capital    |
| • Colony Capital             | • Walt Disney Studio Home Entertainment | • US Marine Corp.             |
| • Merit Properties           | • Meridian Schools                      | • Metropolitan Water District |
| • Action Property Management | • Cardinal Health / CareFusion          | • Surrex Solutions            |
| • Oxstein Design Labs        | • Dynamic Methods                       | • IMAG Consulting             |
| • California Credit Union    | • Young Electric Sign Company           | • IAmResponding.com           |
| • Charles Drew University    | • Fox Entertainment Group               | • Life Steps Foundation       |
| • Wildermuth Environmental   | • Microsoft                             |                               |
| • Sunrise Management         |                                         |                               |

**Venice Consulting Group**, Culver City, CA  
**Director Consulting Services / Sr. Microsoft Architect**

Feb 2006 – Aug 2007

**Responsibilities:**

- Practice Manager – Managed Microsoft Collaboration practice from start to Microsoft Gold Partner status. Managed team of 10 developers and 2 project managers.
- Engagement Management – Primary point of contact for multiple clients. Responsible for P/L for client projects.
- Product/Project Management – Client advocate and responsible for functional and technical documentation for lamResponding.com.
- Resource Management – Managed near-shore team of 40+ developers and development leads.
- Technical sales support – Responsible for supporting sales teams on all collaboration sales efforts including authoring Statements of Work and project plans.

Projects/Responsibilities		Environment
1	lamResponding.com	ASP.NET
2	Collaboration Practice Management	SharePoint, C#

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**Aviva Consulting Group, Costa Mesa, CA**  
**Senior Architect**

Feb 2005 – Feb 2006

**Responsibilities:**

- Design Custom SharePoint Portal Solutions
- Diagnose and remediate architectural issues
- Risk identification and mitigation planning
- Hosted & Multi-tenant SharePoint Architecture Design and Implementation
- Infrastructure Design (Active Directory, ISA Server)

Projects/Responsibilities		Environment
1	ACES Sarbanes-Oxley Compliance Product Development and Implementation	SharePoint, C#

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**Microsoft, Irvine, CA**  
**Sr. Consultant II, SharePoint**  
**Critical Situation Lead, Enterprise Architect, Technical Lead**

Oct 2000 – Jan 2005

**Responsibilities:**

- Design and developed custom Microsoft enterprise solutions
- Diagnose architectural issues
- Enterprise/Active Directory design and implementation
- Server & desktop migrations
- Partner management
- Software Development Lifecycle Management
- Architecture and Code reviews

- Technology roadmaps

Projects/Responsibilities		Environment
1	Telecom Equipment Administration Application – Toyota	C#
2	Remote Access Service Application	C#
3	ManageNetWeb application	C#
4	ToyotaVision Intranet migration	SharePoint
5	Dealer Pipeline Management Application	C#
6	StorageTek Intranet	SharePoint, C#
7	Coors Brewing Discovery Solution	SharePoint, C#
8	NIH Employee Portal Migration	SharePoint, C#
9	FnF Employee Portal	SharePoint, C#
10	Progressive Insurance Portal	SharePoint, C#
11	So Cal .NET UG C# Presentation	C#, VB.NET
12	Citizens Business Bank SQL Server Migration	SQL Server

#### **Partial Client List:**

- StorageTek
- Coors Brewing Co.
- Toyota Federal Credit Union
- National Institutes of Health
- Toyota Financial Services
- Fidelity National Financial
- Nissan Motors, America
- Progressive Insurance
- Toyota
- Southern California .NET Users Group
- Southern California Edison
- Electric.com/ Commonwealth
- Citizens Business Bank
- Pacific Life
- PacifiCare
- Stellcom
- Boys and Girls Club of San Pedro

**M1 Software, Santa Monica, CA**  
**ECommerce Practice Director, Sr. Technical Lead**

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Jan 1998 – Jan 2000

**Responsibilities:**

- Worked with Sr. Executives to develop and implement operational and marketing strategies for the practice
- Develop and implement procedures for identifying, screening and hiring employee candidates
- Planning and implementation of near-shore development strategy
- Support Sales team in defining proposed solution architecture and presenting to client
- Meet with business users to understand application needs and requirements
- Solution Architecture design and Application Development
- Software Development Life Cycle Process management
- Lead and manage development team

Primary Projects		Environment
1	Designed and Developed Gift registry at buy.com	C#
2	Designed and Developed Buy.com Travel Site	C#
3	Design and develop bulk email system.	C#
4	Design and develop Service Loyalty System for MyCarPage.com	C#
5	Various Custom SharePoint Portal Solutions	SharePoint

## Earlier Experience

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**Sr. Software Engineer, Database Administrator**  
**Alliance Pharmaceutical Corp., San Diego, California**

January 1997 – January 1999

**Sr. Software Engineer, R&D Engineer**  
**Nellcor Puritan-Bennett, San Diego, California**

January 1997 – January 1999

**Software Engineer**  
**HNC Software, San Diego, California**

January 1995 – January 1996

**Software Engineer**  
**Equifax National Decision Systems, San Diego, California**

January 1995 – January 1996

**President, Chief Software Architect**  
**Simple Logic Industries, Seal Beach, California**

January 1988 – January 1995

## EDUCATION

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Management Information Systems  
California State University Long Beach, Long Beach, California

August 1988 – June 2000

Studies focused in application development using languages such as C++ and Pascal, operating systems design using Xinu and general business classes such as accounting and economics.

## **ACTIVITIES & AWARDS**

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Volunteer, PIMCO Pro Bono Corps, Brackens Kitchen  
Volunteer, TEALS Advanced Placement Computer Science Java Teacher Corona Del Mar High 2014-2016  
Volunteer, Treasurer Huntington Beach Host Lions Club 2017-2019  
Volunteer, President Huntington Beach Host Lions Club 2015-2016  
Volunteer and 2<sup>nd</sup> Vice President Huntington Beach Host Lions, 2014-2015  
Volunteer, Boys and Girls Club of San Pedro, 2002-2003  
Microsoft ICE Contributor Award 2002



## CLARK LACOMBE

San Diego, California 92117

clark.lacombe@nathcorp.com

*Experienced* cyber security professional results-driven, logical and methodical approach to achieving complex tasks and objectives. Bringing 25 years of extensive financial, healthcare, and utility industry practical IT and 20 years of specialization in cyber security to modern cyber security and compliance challenges.

### KEY ACCOMPLISHMENTS

**Western Digital - Consulting Position:** As Project and Technical Lead, led the migration of 400+ applications from Workspace ONE to Azure AD, 18k Devices from UEM(AirWatch) to Intune, and security access policies to Azure Conditional Access. Also provides security consultation for SharePoint migration from Jive.

**Sempra Energy - Consulting Position:** Provided cyber security, and engineering expertise on 54 enterprise projects, deploying NIST 800-53 Framework controls with RSA Archer Suite for Governance Risk and Compliance.

**MemorialCare - Consulting Position:** Worked closely with CIO to successfully translating non-technical business goals and strategies into successful practical implementation of technical security controls. Projects include consolidating all hospital campuses firewalls to FortiGate with the Forti-ecosystem, new SIEM, Enterprise CA/PKI infrastructure, DUO 2 Factor Authentication, AirWatch MDM, F5 applications delivery appliances, SCCM, and HIPAA and Security Risk Assessments.

**East West Bank – VP IT Security:** Developed and oversaw a successful and effective team that secured customer and corporate data in a highly regulated environment.

### SKILLS SUMMARY

- |                                     |                                   |                            |
|-------------------------------------|-----------------------------------|----------------------------|
| ○ Security Program Development      | ○ Server and Network Engineering  | ○ Cybersecurity Evangelist |
| ○ Governance Risk & Compliance      | ○ Intrusion Detection, Prevention | ○ Project Management       |
| ○ Audit and Remediation             | ○ Advanced Endpoint protection    | ○ Security Metrics         |
| ○ Threat Hunting, Modeling          | ○ Configuration Management        | ○ Process Improvement      |
| ○ Data Loss Prevention              | ○ Mobile Device Management        | ○ Vendor Management        |
| ○ Cybersecurity Incident Response   | ○ Security Awareness Training     | ○ Team Building            |
| ○ Risk Assessment Threat Mitigation | ○ Policy Procedure and Standards  | ○ Mentoring                |

### PROFESSIONAL EXPERIENCE

<b>NathCorp</b> Irvine, California	2019-Present
<i>Senior Cybersecurity Consultant</i>	
<b>Vaco Technologies</b> La Jolla, California	2017-2019
<i>Senior Cybersecurity Consultant</i>	
<b>Primeau Consulting Group</b> Torrance, California	2016-2019
<i>Senior Cybersecurity Consultant</i>	
<b>Cebula IT Consulting LLC</b> , Laguna Hills, California	2012-2017
<i>Senior Information Security Consultant</i>	
<b>Andrea Hoy and Associates</b> , Laguna Hills, California	2011-2019
<i>Senior Information Security Consultant</i>	
<b>East West Bank</b> , Pasadena, California	2003-2011
<i>Vice President Information Technology Security</i>	

**Alpha Consulting**, Los Angeles, California – Senior Consultant 2000-2003

**Independent Consultant**, Los Angeles, California IT engineering and Y2K consulting 1999-2000

**Bird, Paton, and Associates**, Pasadena, California – IT Consultant 1998-1999

#### **EDUCATION**

University of California, Santa Barbara - BS, Business Economics 1992

#### **PROFESSIONAL CERTIFICATIONS**

Certified Information Systems Security Professional (CISSP)

Certified Cloud Security Professional (CCSP)

HealthCare Information Security and Privacy Practitioner (HCISPP)

Certified Information Security Manager (CISM)

Certified Ethical Hacker (CEH) – Ethical Hacking and Countermeasures 2004 - 20016

#### **AFFILIATIONS**

International Information Systems Security Certification Consortium (ISC)<sup>2</sup>

Information Systems Security Association (ISSA)

Information Systems Audit and Control Association (ISACA)

# Lubo Lubomirov

## **SUMMARY OF QUALIFICATIONS**

Strong technical and problem analysis skills proven under high-pressure environments. 19+ years of extensive experience in relational database system analysis, design, and implementation. Specializing in management and design of highly scalable database systems with emphasis on Oracle 12c, 18c, and 19c RAC on Exadata and Linux operating environments. Problem solving in UNIX/Linux, IBM AIX and Microsoft 24x7 production environments.

Hands-on DBA experience working with VLDB's (12TB+) in Oracle 12c and 18c RAC environments with DataGuard and Golden Gate.

Four years hands on experience configuring, performance tuning and administering Oracle Exadata.

Proficiency developing all SDLC phases using the latest innovative approaches that resulted in detail-oriented documentation based on advanced UML and process diagrams.

Experience working with TOAD, SQL Loader, QUEST Spotlight and Foglight monitoring tools.

Strong database business intelligence and reporting hands-on experience using Oracle OBIEE and Hyperion, Cognos, MDM and Business Objects.

## **TRAINING AND CERTIFICATION**

Tibco BusinessWorks 1.x January 2003

Tibco BusinessWorks 1.x Integration Bootcamp January 2003

Windows 2003 Server Administration October 2003

Oracle 9i Database Administration Fundamentals 1 December 2003

Oracle 9i Database Administration Fundamentals 2 December 2003

Oracle 9i Performance Tuning - February 2004

Migrating SQL Server to Oracle 9i March 2004

Advanced PL/SQL Oracle 9i March 2004

Oracle 9i implementation on EMC Symmetrix April 2004

EMC Symmetrix Bootcamp configuration, administration, and DR - January 2005

Oracle 10g Database Administration New Features June 2005

Oracle 10g Grid RAC implementation and administration February 2005

OCP 9i March 2005

Oracle Database Design and Architecture Best Practices - March 2006

Oracle RAC Workshop – June 2007

Oracle 12c RAC configuration best practices and performance tuning – September 2017

Oracle 18c New Features configuration best practices – January 2018

## **RELATED WORK EXPERIENCE**

NathCorp / Open Technology Solutions

[www.theopentechgroup.com](http://www.theopentechgroup.com)

Sr. Database Architect\DBA

March 2011 – Present

Managed security compliance Oracle databases and interacted on daily basis with executive team members in defining report requirements.

Responsible for Oracle 12c and 18c RAC databases audit, security, RMAN backup policies, and disaster recovery environments.

Configured and migrated Oracle 18c RAC database instances to Exadata.  
Managed Oracle RAC 12c, 18c, and 19c databases in mission-critical environments with 98% SLA requirements.  
Responsible for critical patch updates, RMAN backup and recovery using centralized catalogs.  
Installed, configured, and managed new Oracle 12C OEM Cloud Control 13c. Responsible for rolling patch upgrades, RMAN backup jobs in OEM, as well as monitoring and remediation of threshold alerts in Exadata environments.  
Installed and configured Oracle DataGuard for Oracle 12c and 18c RAC-enabled database environments.  
Completed Oracle 12c GoldenGate planning, implementation, testing, and maintenance on Linux RedHat.  
Designed and implemented highly transactional database models, optimized for Oracle RAC.  
Resolved complex database performance issues related to ETL processes and query optimization achieving over 400% improved database response time.  
Proficiency working with ADDM and AWR reports as well as with all analysis tools, part of the Performance Tuning enterprise pack.  
Installed and configured Oracle Streams in 11G R2 RAC and standalone environments.  
Lead DBA for MS SQL Server 2008 R2 and 2012 clustered (AG for 2012) and standalone critical Production instances.  
Installed, configured, and responsible for PostgreSQL database servers in AWS EC2 cloud.

Wells Fargo Bank

[www.wellsfargo.com](http://www.wellsfargo.com)

Sr. Database Architect\Contract – Des Moines, Iowa

August 2010 – March 2011

Senior Data Architect resource in both OLAP and OLTP Oracle 11g environments.  
Responsible for periodic extensive performance tuning efforts utilizing ADDM, AWR reports and I/O, LUN, and CPU analysis and resolution.  
Implemented Oracle DataGuard and GoldenGate in RAC-enabled database environments.  
Managed Oracle OLTP production and staging environments while establishing enterprise-wide data structures, design standards, and well documented models.  
Planned, scheduled and implemented in Oracle database environments database design integration points across different business units in order to facilitate one master data plan and to establish well-structured design patterns representing common business rules across the enterprise. Daily tasks include:

- Understand application architecture and business requirements
- Translate business requirements into database design models and integration points including business flow charts.
- Architect and configure OLTP database systems for playback sessions with customers.
- Craft scalable database solutions with embedded business vision for long-term growth.
- Work with various groups to migrate large-scale database applications into unified environments.
- Create, enforce, facilitate, and extensively communicate full-life cycle database architectural standards across the enterprise.

Utilized on daily basis Oracle Data Integrator to feed data into ODS and into OLTP databases from heterogeneous sources.  
Managed master data models for PeopleSoft, SAP, and third-party applications as part of a master design and architecture framework.

IBM Global Services

[www.ibm.com](http://www.ibm.com)

August 2009 August 2010

Sr. MS SQL Server and Oracle DBA

Planned, scheduled and implemented 38 Microsoft SQL Server 2005 and 2008 two-node clustered systems. Architected and performance tuned mission-critical Oracle 10g RAC systems. The tasks for this project included:

- Analysis of SAP application architecture and nature of transactional activity against the database tier in standalone environment
- Work with BASIS team to implement best practices SAP database and applications security models
- Prepare the correct hardware and software Microsoft stack in accordance with application architecture and customer's environment
- Architect and configure EMC SAN for Oracle RAC and MS SQL Server installation. This includes configuring volumes, LUNs, access paths, and HBA host configuration.
- Configuration of MS SQL Server clustered services and tested fail over and fail back capabilities
- Configuration of MS SQL Server instances and databases in Clustered environment.
- Installed and configured Oracle 10g R2 2-node RAC systems in all environments.
- RAC-enabled all standalone databases and performance tuned the configuration after testing with the development team.
- Established baseline practices for Oracle RAC and used performance tuning pack to improve response time and lower query overhead.

BestIT

[www.bestit.com](http://www.bestit.com)

July 2007 August 2009

Oracle Solutions Architect

Oracle Certified Preferred Technology Partner

Led global technology delivery teams on multiple projects in North America, Europe and Asia while architecting state of the art Oracle and Microsoft based systems designed for performance and scalability at low TCO and maximum ROI. Coordinated development and system administration teams in Fortune 100 financial institutions in their effort to integrate heterogeneous financial applications and develop new operational platforms by establishing corporate-wide standards.

Architected Oracle and J2EE based financial systems designed for maximum security, high availability, VLDB's, bi-directional replication processes and OLTP concurrencies.

Planned, scheduled and implemented Oracle 11g six-node RAC serving both Data Warehousing and OLTP- based applications with WebLogic application servers.

Performance tuned complex queries and business logic in Oracle RAC and standalone environments using AWR, ADDM, SQL Tuning Advisor, SQLAccess Advisor, and all available DBMS packages.

Migrated Oracle databases to RAC environments for SAP and PeopleSoft clients.

Developed and implemented maximum availability database protection based on RMAN, DataGuard and SAN backup\snapshot policies.

Architected and successfully implemented logical and physical database standby databases for DR and reporting purposes based on downstream single or bi-directional replication.

Managed 10g and 11g databases with Oracle 11i and R12 application server stack including upgrades, promotions, patches, customizations, and BI reports integration.

Installed and configured Oracle 10g GRID Control with DataGuard for multiple clients.

Configured Microsoft SQL Server 2005 clustering for new SAP implementation and configured BASIS alerts and events in the application.

Planned, architected, and implemented MS SQL Server Transactional replication and Database Mirroring with MS SQL Server 2005.

U.S. Navy

[www.usnavy.mil](http://www.usnavy.mil)

June 2004 July 2007

Senior DBA/Architect

Lead enterprise-wide effort for database instance consolidation and hardware rationalization that includes migration from Oracle 9i to Oracle 10g RAC back-end architecture across all environments.

Implemented and maintained Oracle Data Guard on 10g R1 critical production databases.

Architect scalable ASM and OCS implementation plan for all Oracle 10g RAC enabled database instances.

Design, implement, and manage Oracle 10g 6-node RAC on SUN Solaris with 68 database instances and 4.2TB of data in Production environment. Oracle 10g RAC environment was also developed and implemented in Development and QA environments.

Responsible for mission-critical Oracle 9i and 10g RAC databases. Duties include ensuring maximum uptime and availability, scalability, backup and recovery with RMAN and Veritas. Developed and implemented database change-control and code review process.

Lead data warehouse project for separating transactional and business intelligence data using Oracle Warehouse Builder and Cognos.

Responsible for migration from Oracle 9i standalone databases to Oracle 10g RAC environment. Developed detailed migration project plan that includes resource allocation and management, communication channels, risk assessment and backup strategy.

Configured and administered EMC CLARIION 300, 500, 700 series and DMX storage. That included architecture and design, setup and implementation of LUNs, RAID levels, HBA configuration, NavySphere enterprise management tools installation and management. In process of implementing SnapView and MirrorView, SRDF, and TimeFinder as part of DR strategy planning.

Participated in the design of detailed DR plan based on LDRPS and EMC core backup technology such as SRDF, MirrorView and SnapView.

Planned, designed, and implemented database migration from MS SQL Server 2000 to Oracle 10g for over 70 SQL Server database instances into 2 Oracle 10g RAC databases.

Architected and configured three separate Oracle 10g and 9i RAC environments on SUN Solaris and on LINUX Red Hat servers.

Responsible for code review and promotion process, working closely with sr. developers for application and database performance optimization.

Installed, configured, and administered Oracle OCS and BPEL 10g Release 2 document management and collaboration systems with more than 15,000 users and 4TB of production data.

Lead database administrator for LNS database migration\consolidation. This project includes database and application consolidation of MAXIMO, Fleet Manager, CIMAGE, CUBIC and other financial applications widely used in the U.S. Navy. The combined user base for all financial, HR, contract procurement, GIS, OCS, and other classified applications is over 240,000 users.

Data Guard was implemented successfully for OCS Oracle 10g classified databases.

Participated in a government-wide effort for application, network, and database Security Technical Information compliance. This effort includes re-hosting all databases to new STIG compliant Oracle Home, migrating all data, users, and roles. Running custom scripts to pre-create the users and roles with new security model. Test the databases and work closely with development and PM community to ensure smooth transition and no downtime for users.

Managed all PISTOL Seabee database environments including upgrade from Oracle 9i to 10g R1. Enhanced PISTOL Seabee database functionality based on new specifications.

Promoted scripts to Production on both application and database server for PISTOL enterprise-wide project. That includes database stored procedures, security changes, packages, Oracle AS reports and forms.

Worked closely with PISTOL Seabee Project Management and Development teams to enhance and maintain database performance, recoverability and uptime in accordance with the growing number of simultaneous users.

Bank of America  
Simi Valley, CA  
[www.bankofamerica.com](http://www.bankofamerica.com)  
September 2003 May 2004  
Senior Client Server/DBA Engineer

Developed standards and procedures for innovative technological implementations within the company that involve all current SDLC standards for process documentation.

Worked on two large scale (2TB and 5TB of data) enterprise implementation projects of Oracle 9i RAC and Data Guard on IBM AIX which are including three node clustered configuration. Responsible for OEM setup and administration, Data Guard configuration, RMAN backup/recovery strategy, jobs, and alerts. Responsible for all user and security administration through OEM.

Designed, tested, and implemented Oracle Maximum Availability Architecture solution for critical loan system with over 12TB of data. This solution includes Oracle 9i 3-node RAC, DataGuard, and EMC SRDF snapshots and SAN backups. Configured and administered jobs, alerts and events on OEM central repository that manages 18 database instances. Configured RMAN backup plans and scripts with Net Backup for maximum 24x7 database availability in accordance with specific retention policies.

Installed and configured Oracle 9i RAC for PeopleSoft Financials and HR applications on IBM AIX pSeries 690 with all custom database modules and specific configuration requirements.

Planned, designed, and implemented EMC Symmetrix and DMX integration with Oracle 9i using SRDF and BCV. Moved existing Oracle 9i databases to EMC DMX leveraging EMC data replication technology and business continuance.

Participated in the design and implementation of bidirectional transactional replication among three different geographic locations using Oracle 9i.

Constellation NewEnergy (Fortune 500)  
Constellation Energy Group  
Walnut Creek, CA  
[www.constellation.com](http://www.constellation.com)  
[www.newenergy.com](http://www.newenergy.com)  
June 2001 July 2003  
Senior Database Administrator

Developed database monitoring and optimization scripts for real time EDI and XML data import and billing applications. Created PL/SQL scripts, stored procedures, triggers, and constraints ensuring domain and environmental integrity.

Designed and implemented the migration of production Oracle 8i and 9i database servers with 3TB of data to a more reliable EMC Symmetrix storage system. Designed RAID sets on EMC Symmetrix for Oracle databases. Implemented change management methodology between development, test and production environments for database related applications, middleware, and web pages. Prepared change management scripts, utilizing version control, to coordinate upgrade and installation of new code for smooth transition or complete recovery.

Managed a team on 24x7 on-call schedule, providing level 2 and 3 database, network, and application support across the company serving in 12 US states and 2 Canadian provinces.

Assisted in the planning and implementation of TIBCO middleware as an integration effort among heterogeneous platforms and applications in the company using TIBCO BusinessWorks, HAWLK, and TIBCO Designer. Provided administrative and programming support integrating databases within the company via TIBCO processes.

Analyzed, planned, and implemented new database and application security model for users and processes to access production and test databases using Oracle 9i security model.

Participated in the successful resolution of database locking problems, query optimization, application hanging processes, data, and hard disk corruption.

Assisted in development of National Reporting database using Oracle 9i OLAP. Developed advanced OLAP schemas, shared cubes, dimensions, and measures to meet business rules and to provide accurate reports.



Performed capacity planning to accommodate business growth on clustered production servers with more than 3TB data overall.

Sr. DBA team lead on global 99.9% high availability 24x7 Oracle 8i/9i database servers on SUN Solaris environment with more than 3TB of OLTP and OLAP databases. Developed and implemented successfully plans for SQL Server upgrades between Oracle 8i and Oracle 9i production servers without downtime for the business. Crafted flexible solutions for data conversion and manipulation between multiple billing, accounting and application database servers using SQL Loader, Transactional Replication, custom scripts, and Data Guard.

Worked with development team to adapt and write complex queries for performance optimization and efficiency. Developed and implemented best practices in database development, data access and application integration with senior development members that include index creation and optimization, logical and physical database design. Participated in design, implementation and support of backup network based on Galaxy Commvault software (latest version presently used 4.1) providing high availability of data and strict retention policy of backups to protect the business and minimize downtime.

Assisted in design and implementation of development environment and data manipulation and updates across the enterprise.

Successfully managed a team of DBAs providing guidance, delegating and sharing responsibilities with team members to ensure accurate and on time project completion while creating professional and integrity-based work environment.

Princeton Review

San Francisco, CA

[www.princetonreview.com](http://www.princetonreview.com)

Senior Database Administrator

April 2001 June 2001- Contract

Performed database administration of four eight-ways Oracle 8i database servers on SUN Solaris operating system with more than 2 million concurrent users.

Supported online enrollment application system for Stanford University for current and prospective students.

Database Administration duties include: Executing incremental and complete backups on different database instances. Running Oracle 8i performance monitoring and tuning scripts. Assigning indexes for database speed optimization. Query optimization includes fixing deadlocking stored procedures and bottleneck performance problems. Writing Oracle packages for data migration. Using SQL Loader and migrating databases among different environments within the company. Assigning security and permission levels in development and production environments.

Partini

Pleasanton, CA

[www.partini.com](http://www.partini.com)

Senior Database Architect

June 2000-April 2001

Designed and implemented the database schema for part configuration, supplier sourcing, RFQ builder, package management, and auction engine with more than 800,000 parts, and 1500 suppliers.

Developed database logical and physical design using ERWIN Platinum, Rational Rouse, UML and DESIGNER 2000.

Hands-on experience working with Oracle 8i, XML View Mapper, XML, XSL, and Biz Talk Server. Extensive experience using stored procedures, triggers, batches, transactions, cursors, views, XML, and XDR (XML View Mapper).

Database administration responsibilities include: Developed database maintenance plans, performing transactional and incremental backup packages, query performance monitoring and optimization, developing database packages for data integration of heterogeneous data sources. Prepared and executed jobs, alerts, and database speed and space optimization tasks including transaction log management and database memory allocation.

Assigning database roles and determining security permission levels with Oracle and UNIX security model. Developed and supported database replication on Oracle 8i.



Kids On-Line America  
San Francisco, CA  
KOLA  
[www.kola.net](http://www.kola.net)  
Senior Database Administrator  
October 1999-June 2000

Developed database logical and physical architecture with Oracle 7.3 on a site with more than 8 million users. Optimized stored procedures, implementing highly available and accessible database configurations (views look up tables). Designed and implemented Database Maintenance Plans, jobs, and assigns levels of database security authentication. Fully built the back-end of the company including Batches, Stored Procedures, Views, Triggers, and Indexing. Supervised two junior DBA's in their development efforts.

## **EDUCATION**

Electro technical University, Plovdiv, Bulgaria  
M.S. Computer Science June 1998

Armstrong University, Oakland, California  
Master of Business Administration (MBA) May 2000,  
Major: MIS

# Warren Kerby

## Managing Principal

### Professional Skills

Possess strong written and communications skills

Technical background expands 35 years of experience including:

- IBM Mainframes / Client Server
- Windows / Unix Platforms
- TCP / SNA Networks Protocols
- File Transfers / Platforms
- Security across all layers
- Application Development
- Database / Reporting
- Performance Testing / Analysis

Consulting Delivery Experience:

- Working closely with customers to align on success criteria
- Managing large consulting teams and projects / continually manage customer expectations
- Understanding and identifying potential risks
- Working with the Product Teams / Vendors to resolve issues
- Identifying and confirming the right resources to delivery the projects
- Strong understanding of Architectures
- Content Reviewer of Document Deliverables
- Program / Project Management

### Education



California State University,  
Northridge

Bachelor of Science (BS),  
Computer Science

## Professional Experience

### NathCorp 2018 to Present

Oversee delivery of consultant engagements across enterprise customer and industries. Responsible for ensuring the delivery teams are aligned on customer goals and that the solutions implemented meet overall customer objectives. Work with the sales team to support and drive strategic large deals across the entire Microsoft technology platform.

Some Key Projects Include:

- Nationwide Insurance Company -> Migration to SharePoint Online, Teams, and Exchange Online. Active Directory / DNS Upgrade to 2019; SCOM Upgrade to 2019
- Global Entertainment Industry -> Migration of Active Directory to 2019; Migration to Exchange Online; Identity Management - built custom interface between Azure Services to ServiceNow to automate account management via HR system.
- Global Storage / Chip Manufacture -> Migration of older Domains to Active Directory 2019 in multiple countries; Migration of on-prem enterprise content management system to SharePoint Online; Migration from legacy federation platform to Microsoft Azure
- Industrial Farming Equipment Manufacture -> Centralize IOT data sources to Azure Data Lake, Develop KPIs and Reporting to meet global customer needs.

### Microsoft Corporation 2000 to 2018

Security Architect during my first few years:

- Developed Microsoft prescriptive architecture on the Internet Data Center focusing on the security and network layers to build the best-in-class DMZ working with Cisco, Intel, Compaq, EMC
- Content author for multiple Microsoft Publications: Internet Data Center; Windows 2000 Security Operation Guide
- XBOX Online Security Analyst – Configured cloud network and OS security prior to GA Release; Performed penetration testing to confirm configuration meets the requirements.

Sr. Account Delivery Executive for the remaining years at Microsoft:

- Responsible for overseeing the delivery of Consulting Services with Microsoft's Enterprise Customer Accounts in Southern California and Hawaii. Accountability for customer satisfaction and the successful implementation and support of Microsoft solutions within customer environments.
- Assembled the global delivery consultant teams to support Engagements spanning from initial concept envisioning through implementation including enterprise support.
- Engagement Technologies focused on: IOT, Azure, Dynamics AX, Identity Management, O365 Services, Custom Developed Mission Critical LOB Applications, OLTP / Data Lake / Hadoop, Reporting, Cybersecurity, Infrastructure Consolidation, Disaster Recovery
- Industries Covered Include: HealthCare, Utilities, Media and Entertainment, Financial Services, Biotech, Capital Markets, Retail, Ecommerce



# CHAD CURTIS, PMP

PROJECT MANAGEMENT & OPERATIONS EXECUTIVE



Long Beach, CA



[linkedin.com/in/blackedoutbuddhist](https://www.linkedin.com/in/blackedoutbuddhist)

## EDUCATION

**Master of Science in Project Management** | Boston University, Boston, MA

**Bachelor of Science in Human Resource Management** | New School University, New York, NY

## CERTIFICATIONS

**Project Management Professional (PMP # 535318)** | Project Management Institute, 2008

**Certificate in Lean Six Sigma Green Belt** | EADS North America University, 2006

## SKILL HIGHLIGHTS

- Outstanding Communication and Interpersonal Skills
- Leadership & Influence
- Project Management
- Creative and Pragmatic Problem-Solver
- Infectious Passion for Growth & Innovation
- Brilliant Time Management and Prioritization Skills
- Flexible Thinking and Adapts to Changes
- Critical & Analytical Thinking

Dedicated, compassionate, and results-oriented Project Management and Operations Executive with over 21 years of diverse experience in multiple industries. I have 5 years of experience as a business coach with a demonstrated track record of success working with diverse populations, as well as years of experience in driving continuous growth through efficient and effective operational management in the defense and aerospace industry. A dynamic leader and natural advocate who connects with any personality, I'm eager to continue my journey and never stop growing, committed to excellence in everything I do.

## PROJECT MANAGEMENT EXPERIENCE

### Director of Project Management

L3 Technologies, Electron Devices Division | 2014 – 2018

- Effectively managed various daily operations and growth functions for a \$12.5 Billion worldwide leader in communication and electronic systems, including leading long-term strategic planning for project and product development, annual revenue projections and planning, and maintaining strong relationships with key stakeholders.
- Full P&L responsibility, provided oversight for a \$62 Million annual project portfolio in the development and production of satellite traveling wave tube amplifiers (TWTAs) that served domestic and international customers, including the United States Department of Defense, its prime contractors, Government Intelligence Agencies, Department of Homeland Security and foreign Governments.
- Led and inspired a multi-disciplinary team by setting clear goals and expectations, providing guidance and coaching, fostering a growth mindset, delegating tasks according to past performance, and improving team performance through regular evaluations and feedback.
- Achieved a double-digital portfolio EBIT increase by attaining all program early delivery incentive fees.

### Senior Project Manager & Business Portfolio Manager

L3 Technologies, Power Paragon Division | 2008 – 2014

- Maintained a high-volume workload in a fast-paced environment, including leading a \$30 Million annual business portfolio, managing a team of 4 project management direct reports, and facilitating continuous growth through a focus on driving EBIT, orders, sales, and cash flow.
- Received the 2013 Presidential Award by implementing a task level negative variance analysis process, and schedule quality and risk analysis tools that enabled teams to more accurately predict and influence project adherence to plans.
- Oversaw a team of 10 direct reports in the project engineering department, facilitating the technical success of all development products/programs, ensuring adherence to allocated budgets and strict deadlines, and collaborating with the project management office to optimize resource distribution across all programs.
- Drastically reduced cost and schedule variances by establishing an enterprise engineering resource and manpower planning process, achieving alignment between supply and demand.
- Demonstrated excellent project management skills by leading a \$25 Million advanced power conversion development program, serving as the primary point of contact for customers, and overseeing project P&L, schedule, risk, scope, quality, procurement, negotiations, and executive status reporting, and growing follow-on business opportunities for programs being executed.



## EXPERIENCE – CONTINUED

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### Senior Project Manager

European Aeronautical Defense & Space (EADS) North America, Inc. | 2004 – 2008

- Expertly managed all aspects of programs, including P&L, schedule, risk, technical, quality, procurement, and subcontract negotiations.
- Led the integration of major subsystems, including software for the company's largest single program to date, in excess of \$150 million.
- Generated \$4.2 Million in revenue by successfully developing a performance-based logistics (PBL) program and employing subject matter expertise to manage all aspects of programs, including P&L, schedule, risk, technical, quality, procurement, and subcontract negotiations.
- Significantly increased revenue by growing repeat test system business opportunities with key clients, resulting in an additional \$5.5 Million annually, creating a global support structure and earned \$8 Million in warranty revenue, and gaining additional annual revenue of \$12 Million through early deliveries of systems.
- Reduced operating costs by \$250K per month by reducing operations errors, introducing innovation, and streamlining and enhancing processes, eliminating as much manual work as possible, resulting in a 33% increase in product availability.

### Project Manager

MGE UPS Systems | 2000 – 2004

- \$1.0 billion annual revenue, provider of back-up power products and services, including uninterruptible power supplies (UPS), power conditioning equipment and power management software.
- Led new product development projects, consisting of reviewing statements of work (SOW's), specification analysis, activity sequencing, project plan development and creative problem solving for high KVA power quality equipment.
- Key contributor in developing/streamlining engineering development processes which significantly reduced time to market for new products.
- Developed robust training program for the mid-range product line that was implemented company wide.

### Electronics Technician, USS Columbus, SSN-762

United State Navy, Naval Nuclear Power Program | 1991 – 2000

- Division Leading Petty Officer aboard a nuclear-powered fast attack submarine. Supervised seven reactor operators on the repair, alignment, calibration and troubleshooting on all systems vital to the operation and safety of the nuclear reactor.
- Awarded the Navy and Marine Corps Achievement Medal for leadership.
- Top rated Quality Assurance Inspector (QAI) for sub-safe and nuclear plant systems.
- Served as Nuclear Power Training Unit staff instructor, instructing enlisted and officer students at an operational reactor training facility in reactor theory, operations and reactor control instrumentation.

## AREAS OF EXPERTISE

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Directing highly technical teams in advanced software and hardware development projects

Delivering mission-critical projects on time and within budget

Earned Value Management and planning of complex projects

**Technical Approach and Methodology**  
**(Criteria Four)**  
**(Attachments H and I)**

## 1. Purpose / Background

This Proposal sets out the tasks, responsibilities, work scope and other items applicable for the deployment of a new cloud-based Enterprise Content Management solution (“ECM”) to Metropolitan Water District, (“Metropolitan”).

Metropolitan has many different systems and content sources that currently store and manage their documents across approximately 200 Business Units. Due to the multiple repositories and the number of documents that have grown over the years, the ability for Metropolitan Business Units / Users to easily locate and manage their documents has become more challenging over time. In addition, the amount of IT resources, processes and costs associated to manage and support the Business Units has become more burdensome and time consuming due to a decentralized content management implementation today.

Metropolitan is looking simplify each Business Unit’s method to search, store and retrieve documents as well as centralizing most documents today into a single common platform across the enterprise. Metropolitan’s goal is to take advantage of a centralized architecture utilizing Artificial Intelligence to improve efficiency and accuracy extracting specific metadata associated with each document and to improve business unit’s processes and to accelerate the user’s ability to quickly locate documents within the new Enterprise Content Management (ECM) platform. The end state vision will be a centralized intelligent document management repository integrated with enterprise search capabilities that will expand across other key Metropolitan’s document content sources in order to improve users’ ability to quickly find information, identify and cleanup stale or duplicated documents and to reduce overall IT costs and support.

## 2. Proposed Enterprise Content Management Solution Architecture

NathCorp is proposing a cloud-based solution utilizing Metropolitan’s existing Microsoft SharePoint Online platform along with integrating Microsoft’s Syntex “Intelligent Document Processing” to automate metadata extraction and improve business processes. Utilizing the Microsoft Cloud Platform, NathCorp’s proposed solution will implement all components in Azure providing high availability, achieving 99.5% availability as well as providing geo-redundancy across multiple cloud data centers in the US. This availability and redundancy also apply to the storage tier down to the storage layer. The proposed solution is a low code implementation providing mostly out-of-the-box configurations with most customization focused on the required interfaces to specific content sources to meet enterprise search requirements. Microsoft SharePoint Online is a proven platform that provides enterprise-scale capabilities to meet business-critical needs including document management, search, and automating business processes to enable better informed decisions. Metropolitan will be able to take advantage of the following benefits utilizing their current SharePoint Online deployment:

- Reduce costs by leveraging existing SharePoint licenses.
- Utilize Azure Cognitive Search capabilities simplifying how people find and share information.
- Security is completely integrated with Metropolitan’s Azure AD and M365 Groups. Any custom azure workflows can run under Metropolitan security context.
- With SharePoint lists and libraries, Metropolitan will be able to utilize Power Automate and Power Apps to create rich forms, workflows, and custom apps to improve and automate current processes including content archiving and ongoing ROT identification and remediation.
- Opportunities to integrate with other M365 applications (Teams, Exchange, PowerBI embedded, etc.) for future usage scenarios to improve collaboration and business processes.
- Support current Metropolitan browser standards and can be accessed from any device including mobile devices; the Microsoft SharePoint and Microsoft 365 apps are supported on iPhone and android devices.

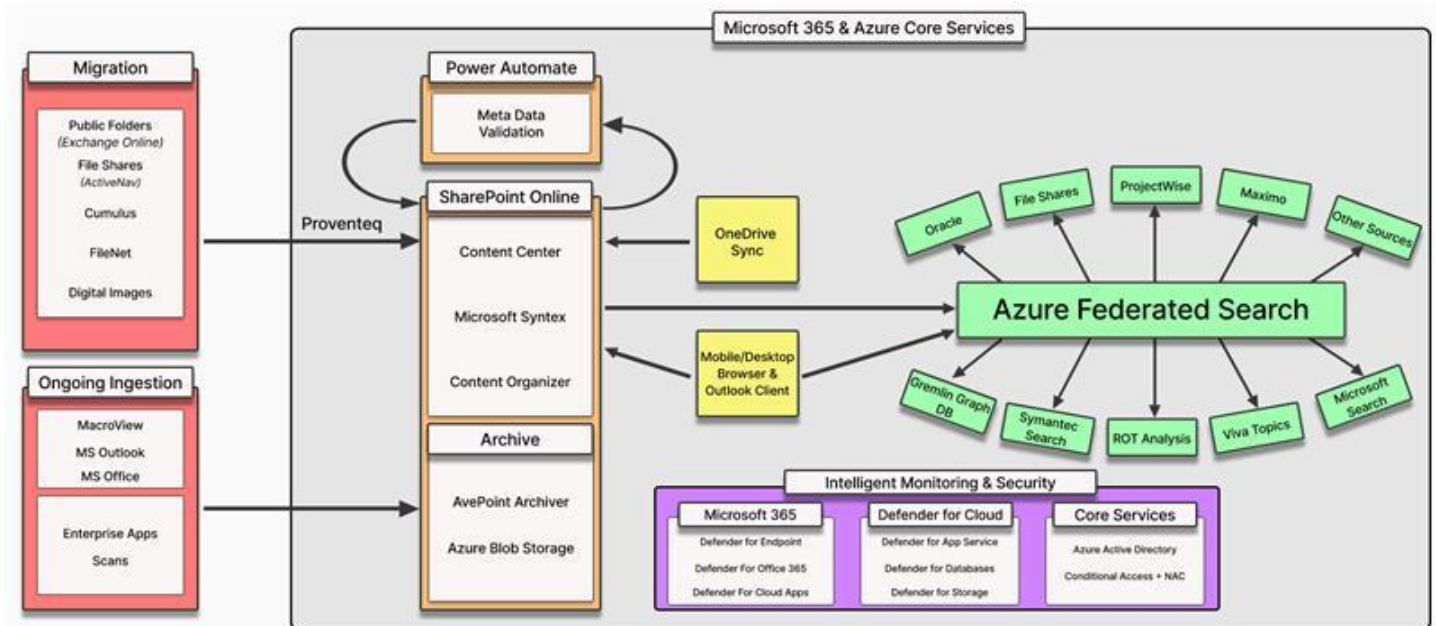
Microsoft Syntex is an Intelligent Document Processing (IDP) software solution that extracts and classifies documents (e.g., e-mail, text, Word, PDF, or scanned documents). The capabilities provided by Syntex meet the document

processing requirements per Metropolitan RFP. Below are key benefits that Metropolitan will be able to leverage with this solution:

- Completely integrates with SharePoint Online and Azure Security and existing availability architecture.
- Utilizes AI technologies computer vision, OCR, and ML to extract, analyze, categorize specific information from fields in scanned documents that learns and improves accuracy over time.
- Adds the extracted content from scanned images to SharePoint libraries to be available for use of existing SharePoint features (knowledge discovery and sharing, content governance, etc.) as well as automating workflows to improve business processes.
- Data extracted can be exported to external systems to support other existing business processes.
- Reduce customization of the end-to-end solution by leveraging Syntex out of the box capabilities

The foundation of NathCorp's proposed ECM architecture (diagram below) uses standard Microsoft Azure components to deliver the required cloud-based functionality; additionally, we have included the following suite of Microsoft cloud-based products to ensure our response represents a complete end-to-end solution based upon the requirements set out in the RFP. These components are all industry standard, off-the-shelf components, highly rated in their technology category by Gartner and other key rating agencies.

- Microsoft SharePoint Online – enterprise document management system for storage and retrieval of enterprise content and supports robust offline access via the OneDrive Sync to support occasionally connected scenarios
- Microsoft Syntex – for key intelligent document processing, interpretation, and categorization
- Microsoft Cognitive Services / Forms Recognizer / Azure OCR – for AI and ML services to read and interpret Metropolitan's scanned documents.
- AvePoint Cloud Archiver – to automatically archive images and data in addition to retrieving documents from the archive as needed. This Storage solution will also reduce storage costs utilizing Microsoft Azure Blob Storage
- Microsoft Azure Cognitive Search – Includes federation to required content sources enabling users to expand search requests from a single view as well as provide an enhanced enterprise search experience that includes Symantec search capabilities.
- Microsoft Cosmos Gremlin Graph Database – Provides a Master File catalog along with document relationships that will assist with supporting the ROT requirements.
- Microsoft Azure AD – for security and identity management leveraging Metropolitan's existing architecture.
- Microsoft Azure AI Monitoring – to monitor the health of the complete solution and use native AI capabilities to promote "self-healing" wherever possible.
- Microsoft Security Suite – M365 G5 Defender suit of products providing a layer of protection across all cloud components, Microsoft Purview for compliance and Microsoft Sentinel to collect and analyze security logs across all cloud solution components.



### 3. Project Approach

This Proposal focuses on the services required to design, build, and deploy a cloud-based Enterprise Content Management solution based on Microsoft Technologies to address the key features and functionality set out in Metropolitan's RFP. The scope of work is provided in multiple Tasks in which some will run in parallel to accelerate the build phase with the goal to target a July 2023, start date as follows:

- Task #1 – Discovery and Planning
- Task #2 – ECM Build Phase
- Task #3 – Document Migration Build Phase
- Task #4 – Federated Search / Custom Interfaces Build Phase
- Task #5 – Enterprise Security Build Phase
- Task #6 – UAT / Production Deployment / Pilot
- Task #7 – End User Adoption
- Task #8 – Production Rollout
- Task #9 – Program Management

This Proposal covers the expected services for the (9) Tasks as described above. Delivery of services for subsequent Phases will be covered in separate SOW(s).

#### 3.1 Tasks and Activities will Include:

##### Task 1 - Discovery and Planning

NathCorp to staff a program manager and a team of Architects with expertise in SharePoint, Syntex, Platform Integration, Document Migration, Enterprise Search and Security to drive the overall solution requirements and proposed architecture in preparation to build the Enterprise Content Management Solution per Metropolitan's requirements.



## **In Scope**

### **1. Discovery Phase**

- Assess current Metropolitan Document Types, Content Management Sources, and current environment.
- Confirm use cases and requirements for the proposed ECM solution, including Portal layout / navigation, Document Migration, Intelligent Document Management, Business Processes, Enterprise Search including interfaces to other platforms, and overall security requirements.
- Confirm document types and meta data extraction for OCR / Intelligent document processing.
- Put together conceptual architecture for the proposed solution along with high-level migration approach.
- Get agreement on Minimum Viable Product that the solution needs to meet.
- Collect and document security and compliance requirements.

### **2. Planning Phase**

- Put together a detailed design to support the proposed ECM solution components which include:
  - i. SharePoint Information Architecture including site topology, navigation, search, document management, retention policies and archiving.
  - ii. Syntex Architecture plus intelligent document processing workflow components
  - iii. Automation design using Power Automate; interface design using Power Apps
  - iv. Enterprise Search and Security including interfaces to non-Microsoft platforms.
  - v. Document Migration from the various platforms and to ensure File Links are maintain throughout migration in addition to identifying ROT
- Create a detailed master project plan to support the subsequent phases for the below Tasks.
- Identify and track potential risks associated with the proposed architecture and migration.

## **Assumptions**

1. Metropolitan will make available required resources and provide necessary knowledge and access to systems in scope to support the discovery and planning phase.

## **Task 2 – ECM Build Phase**

The ECM Build Phase focuses on the configuration and customization of SharePoint Online, AvePoint Archiving, and related components to support the solution. In this phase, the content management system will be configured based on the document management / records management requirements and policies derived from the discovery phase to support each Business Unit including archiving. In addition, intelligent document processing will be implemented utilizing Microsoft's Syntex to extract key metadata to be used for future business processes and automation taking advantage AI to improve overall accuracy.

## **In Scope**

1. Establish test environment with required cloud components necessary to validate the design.
2. Configure Out of the Box SharePoint Online components and workflows to meet the solution requirements.
3. Develop customizations in SharePoint to meet use cases not covered by out of the box features such as custom SharePoint Templates.
4. Confirm Content Types and Sensitivity Labels
5. Use Syntex pre-built and customized forms to extract information and categorize metadata from documents. For each document type in scope, ingest and train the Syntex to extract the proper fields into metadata utilizing ML models. Confirm accuracy for each document type.

6. Conduct POC using Power Automate / Power Apps to demonstrate capabilities to improve existing business processes and potential automation scenarios based on the agreed upon use cases that the POC needs to meet.
7. Confirm storage requirements, archiving rules and document retention rules.
8. Implement and test a 3<sup>rd</sup> party Outlook Client plugin that will provide end users the ability to save emails as PDF files in SharePoint Online. Centrally configure and manage policies for all users.
9. Build, configure and implement the storage solution integrating with SharePoint Online and Azure Blob Storage in test environment.
10. Test and validate that the ECM solution meets the requirements for this specific Task.

#### **Assumptions**

1. All build work will be performed in Metropolitan's Test Environment
2. A 3<sup>rd</sup> party Azure SaaS Vendor "AvePoint" will be used for the archive / restore solution from SharePoint Online to Azure Blob Storage

### **Task 3 – Document Migration Build Phase**

The ability to centralize, automate, and ensure integrity of document migration is critical to the success of this project. NathCorp will be using a 3<sup>rd</sup> party migration tool "Proventeq" that comes with built-in connectors to most of the content sources in scope for this phase of the project. Some connectors will need to be built during the project for certain content sources not supported today. The goal at the time of the production cutover phase is to have all content sources connectors in place under one tool for migration to provide centralized monitoring, reporting and status during the migration process in addition to providing the ability to assess all content sources and documents related to each Business Unit to establish a centralized inventory. By having a centralized inventory of all documents within each content source, we will be able to pre-stage the migration with the goal to migrate most of the documents prior to migrating the actual Business Units. During the production rollout phase, only changes to existing documents or new documents will be migrated reducing migration time and simplifying the validation steps and minimizing risks for a migrated Business Unit. This approach is particularly beneficial for enterprise grade migrations which involve terabytes of data and/or consolidation of multiple source systems. In addition to migrating documents from content sources to SharePoint Online, the Proventeq tool will also manage embedded file links to ensure integrity of links are updated appropriately as documents move to SharePoint Online

#### **In Scope**

1. Install and configure Proventeq tool and install connectors to supported content sources.
2. Build connectors for other content sources currently not supported in the tool.
3. Conduct discovery on content sources and provide analysis on the content targeted for migration to build an inventory.
4. Create migration rules in the tool from content source mapping to destination SharePoint Online
5. Test migration using a subset of typical document types and sizes with each targeted data source.
6. Confirm the integrity of file links during migration.
7. Confirm throughput speeds and potential migration times for estimations that the production rollout plan will take into consideration for migration of Business Units
8. Validate migration of documents into SharePoint Online
9. Confirm document processing rules identified which will be handled in Task2.

#### **Assumptions**

1. Metropolitan to ensure the test environment mimics production environment content sources targeted for document migration.
2. Targeted content sources in scope are: Shared Drives / ActiveNav (Metadata), FileNet v5.5, Cumulus v11, Digital Images (File Share) and Exchange Online Public Folders

3. We are assuming that the digital images targeted for migration will be on a shared drive.
4. To support existing metadata currently stored in ActiveNav, the ActiveNav metadata will be exported to a SQL database to be consumed by the migration tool.
5. Sufficient network bandwidth exists to enable timely data transfer to support approximately 45TB of data across 200 Business Units will be copied from Metropolitan's environment to SharePoint Online

## **Task 4 – Federated Search / Custom Interfaces Build Phase**

Federated Search will enable users to find documents from the ECM and all content sources in scope. Users will be able to perform searches from their Windows Desktop search bar, Edge Browser or can use a custom UI that will provide more search capabilities. To support Federated Search across key platforms identified in the RFP, NathCorp will create custom interfaces to specific content sources to enable Metropolitan users to expand their search criteria from a common centralized interface across these additional platforms. The focus of the interface will be to support the specific search criteria to identify unique documents across the enterprise including the Enterprise Content Management platform SharePoint Online and provide the ability to retrieve the document.

### **In Scope**

1. Develop custom Azure Search UI to provide advance search capabilities such as faceted search.
2. Connect Azure Cognitive Search to Azure Search which will enable users to perform federated search from their desktops, browsers, Office 365 Apps, etc.
3. Integrate Azure Search with SharePoint Online and Content Sources
4. Work with Metropolitan resources to confirm architecture and specifications for each content source interface.
5. Commence development and testing of each interface; development and testing will run in parallel for each interface to speed timeline to production.
6. Incorporate monitoring, auditing and reporting for each interface.
7. Integrate Azure Search with SharePoint Online and Content Sources via custom interfaces developed.
8. Test and validate end to end Search scenarios and confirm links to documents retrieval working across all content sources in a test environment.

### **Assumptions**

1. Security context of a search may be limited depending on the content source's ability to handle security and Azure Identities.
2. NathCorp development team will utilize Azure DevOps as the development platform for requirements, source code management, and testing.
3. All custom development will use latest versions of .Net, Java, Security libraries and will go through periodic scans as part of the application lifecycle process using a 3<sup>rd</sup> party tool to ensure coding practices are in place and to identify potential security risks.
4. Up to 4 interfaces to content sources will be developed which currently include Oracle (PO's, Contracts), Bentley ProjectWise, ContractSafe, and Maximo
5. Links in Search results, when opened, will direct the user to the originating content source system where the document currently resides using that systems current method for opening and viewing documents.
6. Metropolitan users will have additional methods to perform federated search out of the box but must be on Windows 10 / 11 desktops, use Edge Browser as their standard and will be able to leverage other M365 services to perform search in addition to the custom search UI built during the project.
7. Files in the proposed ECM which includes SharePoint Online, and the Content Sources will be searchable through Azure Search but not all content in files will be searchable due to unsupported file formats.

8. Metropolitan is fine with NathCorp development team utilizing Open-Source solutions (primarily GitHub) if the source code is available for download and review. NathCorp will incorporate security practices as part of the application development lifecycle process.

## **Task 5 – Enterprise Security Build Phase**

NathCorp will address the Metropolitan's Security requirements, as specified in the RFP, by utilizing the Microsoft Security Stack. Our aim is to extend existing Metropolitan Microsoft security footprint and use a single common identity source for the ECM solution. We can do more for less by avoiding the complexity of mixing multiple security vendors or increasing risk by deploying and integrating new disparate security products.

Microsoft 365 G5 Defender products will protect Identities, Endpoints, Applications, Cloud Apps, and Documents. Microsoft Purview will satisfy compliance requirements and manage the document lifecycle. Azure Defender for Cloud will protect cloud infrastructure required by the solution. Azure Sentinel will collect and correlate security logs and signals from all the components of the solution, and augment with a layer of automation and artificial intelligence.

NathCorp will implement Static Application Security Testing (SAST) in the development pipeline. Implementing a Continuous SAST program will discover weak and vulnerable code early in the development process. It will be much easier to remediate security vulnerabilities when code is still in development.

### **In Scope:**

1. Implement and deploy Metropolitan security and compliance Requirements, as identified in discovery, in Microsoft 365 Defender, Microsoft Purview, and Azure Cloud Defender.
2. Meet regularly with the Metropolitan Security team to ensure alignment on the cloud configuration with the security and compliance requirements.
3. Work with SharePoint Online team (Task2) to ensure that the security configuration meets the requirements.
4. Work with the Enterprise Search team (Task4) to ensure SSO and security interface with content sources are in place correctly.
5. Test and validate security settings meet Metropolitan's security requirements in test environment across all Tasks.

### **Assumptions**

1. SAML 2.0 and up, but OAuth 2/Modern Auth will also be acceptable.
2. The Azure AD identity will be used for Security controls and access decisions in the destination data stores, such as Oracle and GIS
3. M365 G5 licenses will be procured for all users of the ECM solution.

## **Task 6 – UAT / Production Deployment / Pilot**

After the last Sprint development/Stabilization activity concludes, the code will be baselined, packaged, and deployed to the UAT environment by NathCorp. This environment will be used by Metropolitan for their Final Release UAT. During UAT, NathCorp will work with Metropolitan UAT team to correct and remediate issues identified and incorporate changes for final testing. At UAT Sign off, NathCorp will proceed to package and deploy the ECM solution into Metropolitan's production environment and will commence a production pilot with a subset of Business Units to

validate migration of the Business Unit's related documents and to confirm the end-to-end ECM Platform and Federated Search solution is ready for production rollout to the remaining Business Units.

#### **In Scope**

1. Perform end to end solution validation test to confirm MVP.
2. Deploy baseline solution to UAT environment.
3. Metropolitan security team performs validation of security requirement and provides approval.
4. Initiate formal UAT validation and remediate identified issues with the goal to get UAT Signoff confirming that the solution meets the MVP requirements.
5. Create deployment and communication plans.
6. Prepare production environment and deploy ECM solution.
7. Conduct production pilot with a small subset of Business Units to include migration of documents.
8. Perform final stabilization and prepare for production rollout.
9. Continue up to 90% document migration to SharePoint Online for all Business Units to minimize the product cutover times.
10. Finalize production cutover plan for remaining Business Units yet to be migrated.

#### **Assumptions**

1. NathCorp and Metropolitan to agree on final test cases to support UAT exercise and signoff.
2. Metropolitan to provide NathCorp resources proper access in production to deploy and support the ECM solution.
3. Metropolitan to identify a subset of Business Units to support the production pilot that will be completely migrated to the ECM platform.

### **Task 7 – End User Adoption**

Prior to production release and migration of Business Units, it will be critical to ensure Metropolitan's users migrating to the new ECM platform are prepared and ready to use the system. NathCorp will use a Microsoft Certified Training Partner "Brainstorm" to deliver the training to Metropolitan's Business Units and users. Much of the training curriculum for the new ECM Platform will be already intact that is readily available through Brainstorms Platform. Some additional training will be tailored by working with assigned resources from Metropolitan's End User Adoption Team to determine key usage scenarios that need to be included in addition to the material already present in Brainstorms Platform.

#### **Included with the training are:**

1. All Training will be delivered remotely through Brainstorms Platform which includes a vast repository of training material tailored Microsoft M365 specifically SharePoint Online, OneDrive, Teams, Exchange etc.
2. Custom content will also be provided with up to 10 (1-2min Videos) or up to 10 PDFs that will be tailored to the key ECM workflows that are not included in the standard curriculum and working with the end user adoption team.
3. Two custom-recorded training events are included. Content to be determined working with Metropolitan's end user adoption team.
4. Up to 10 Live instructor training sessions are included. Content to be determined working with Metropolitan's end user adoption team.

### **Task 8 – Production Rollout**

After successful completion of the production pilot with key Business Units, NathCorp will prepare to migrate the remaining Business Units to the new ECM platform including migration of documents. NathCorp will provide a

deployment team that will manage the migration and configuration changes to support each Business Unit. In addition, during this migration period, NathCorp will provide production support with a team of consultants to address issues that may surface during migration or with the ECM platform throughout the duration of this phase of the project. Preparation work will also be performed for each Business Unit prior to migration. An assessment of each Business Unit will be performed to confirm all documents and content sources targeted for migration and to confirm roles and access rights to the ECM Platform.

#### **In Scope**

1. Finalize communication plan.
2. Confirm migration schedule and migration sequence for all Business Units
3. Perform preparation tasks associated for each Business Unit that includes all documents to be migrated and the content sources in use along with the specific configuration settings that will need be in place with the ECM Platform to support the migration.
4. Initiate communication to Business Units targeted for migration.
5. Coordinate and conduction migration tasks for each Business Unit
6. Update migration of documents to capture only new documents and changed documents from the previous migration.
7. After each migration, perform validation exercise to confirm readiness prior to cutover for each Business Unit
8. Provide production support during migration throughout the Production Rollout Phase.

#### **Assumptions**

1. Conduct production migration over agreed timeslots for each Business Unit
2. Approximately 60TB of migrated documents will be added to SharePoint Online during migration.
3. Each Business Unit will need to provide a very small subset of resources (Power Users, Users) to validate the success of each migration working with the NathCorp team.

## **Task 9 – Program Management**

NathCorp to staff multiple project managers in order run the above services Tasks in parallel. The lead project manager or program manager will work jointly as a “Leadership Team” with the assigned Metropolitan Product Owner and IT Project Manager, to deliver the overall Enterprise Content Management Solution and related NathCorp resources will create and manage the following artifacts:

#### **In Scope**

1. Program Manager Responsibilities
  - a. Primary point of contact for the Metropolitan team
  - b. Responsible for managing and coordinating the overall project delivery working with the assigned Metropolitan Project Manager
  - c. Coordinates and communicates with Metropolitan PM to facilitate workshops, meetings, etc.
  - d. Develops and owns the detailed master project plan.
  - e. Owns status reporting, tracking issues and risks; conducts weekly status meetings.
  - f. Contributes to communications with Metropolitan stakeholders; conducts monthly stakeholder meetings.
  - g. Responsible for resource allocation, risk management, project priorities, and identifying resource needs.
  - h. Collaboratively works with NathCorp project managers to other Tasks in the project to align with the master project plan, schedule, etc.

#### **Assumptions**

1. Metropolitan to provide a full-time project manager who will be responsible for allocating required Metropolitan resources needed for this project.
2. Metropolitan to make available technical resources as needed for each Task throughout the project.

### 3.2 Project Deliverables

The following Deliverables will be produced during the project.

1. Requirement Documents and conceptual architecture
2. Detail Design that includes architecture and diagrams of the proposed solution
3. Detailed project plans
4. Configuration documents and “As Built”
5. Deployment Guide that provides the steps to install and configure the production environment.
6. Development of Administrators Guide and Operational Procedures
7. Updated Azure Costing Models
8. Provide ongoing knowledge transfer to the Metropolitan team.
9. Implement Training Content tailored to the ECM solution.

### 3.3 General Project Assumptions

Services will be delivered based upon the following assumptions:

1. Metropolitan will provide a full-time project manager to work with the NathCorp Program Manager. The Metropolitan project manager will own the internal Metropolitan communication plan and coordination of Metropolitan resources required during the project.
2. Metropolitan will make available required resources and subject matter experts needed throughout the project in a timely manner.
3. Metropolitan will provide proper credentials and access to required systems in their environment to NathCorp resources.
4. The network connectivity / utilization between Metropolitan on-premises infrastructure and Azure are sufficient to support migration transactions.
5. Security (Authentication and Authorization) are already in place; NathCorp solution will utilize Metropolitan existing Azure AD
6. Metropolitan systems and applications will provide the necessary data feeds and performance to ensure the NathCorp ECM solution can perform to the required SLAs.
7. Without understanding Metropolitan’s current SharePoint usage and performance characteristics, changes may be required to improve overall performance.
8. Only the English Language will be supported for this first release.

### 3.4 Project Out-of-Scope

The following items are specifically excluded from the services set out in this Proposal.

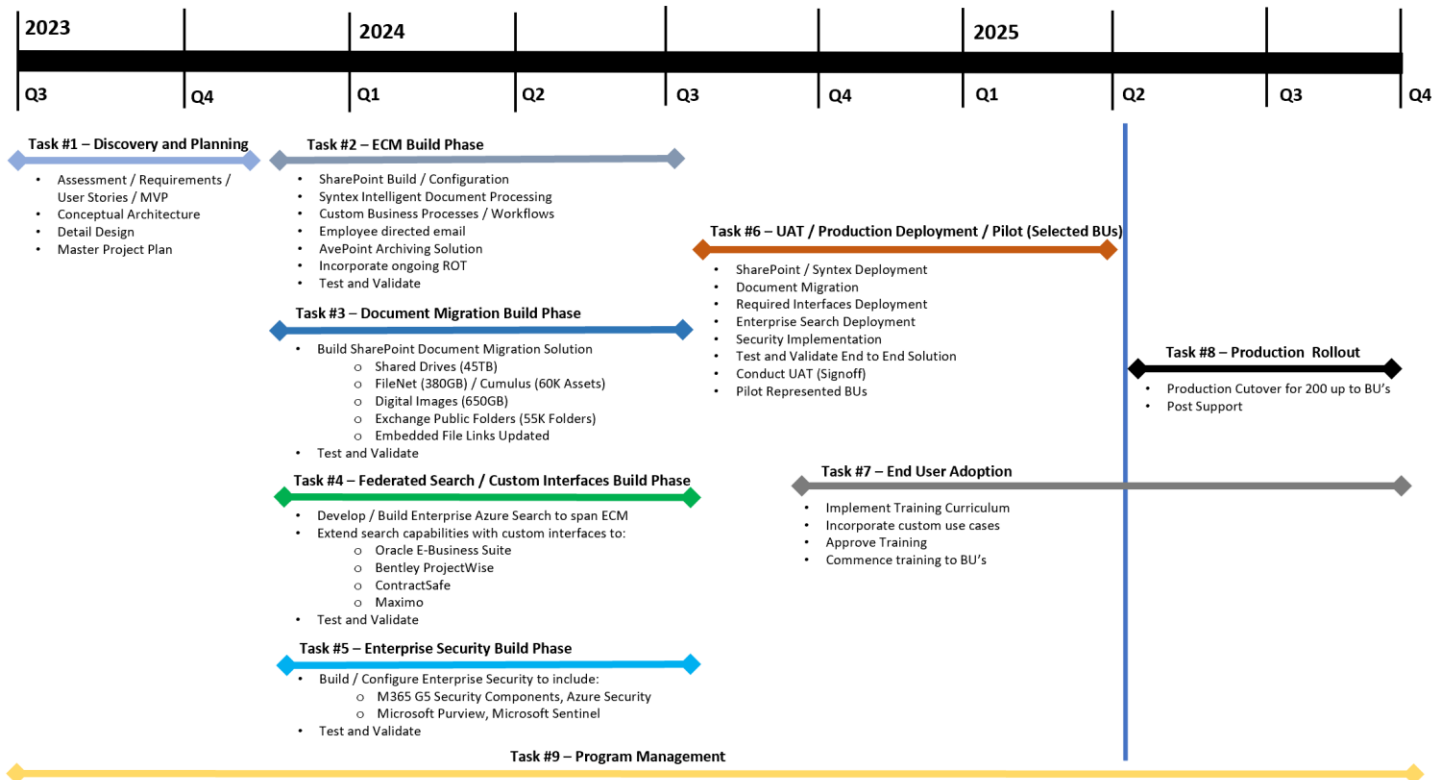
1. Configuration of third-party applications and Devices / Network Devices (firewalls, switches, port rules, etc.)
2. Customizations or development to any Metropolitan Applications or Systems – only interfaces to specific systems identified in this Proposal will be developed.
3. Work on any Metropolitan environment issues
4. Analysis or changes to any applications; implement or configure applications within Metropolitan’s environment.
5. Purchase of any software licenses or services not specifically identified as included in this RFP response.



### 3.5 Proposed Estimated Timeline

NathCorp believes that this will be a multi-year project to meet the objectives and requirements outlined in Metropolitan’s RFP and to ensure that the ECM Platform is a fully capable production ready solution to support the Business Units. Below are the proposed estimated timelines for each Task based on the information provided in Metropolitan’s RFP. Although this approach and duration span multiple years, we believe it is a prudent approach that will substantially reduce overall project risk, ensure minimal to no production impact, and create the best opportunity for project success and cost management.

Throughout the project, NathCorp will look for opportunities to run many Tasks in parallel to help expedite the delivery to production. Once NathCorp has a better understanding of Metropolitan’s environment and has confirmed detailed requirements and success criteria after Task #1 Discovery and Planning phase, changes may be made to the estimated timeline.





## ATTACHMENT H – TECHNOLOGY INFRASTRUCTURE QUESTIONNAIRE

Most Metropolitan’s Microsoft systems are listed below. Metropolitan is currently moving from a Microsoft G3 to G5 license.

**Respondent:** Complete the tables below.

	Certifications	Brief Description of Implementation Experience
SharePoint 365	MCTS; MS Gold Collaboration; MS CAPP Program Member	Over 15-years SharePoint implementation experience with enterprise clients
Teams 365	MS Gold Collaboration	Over 5 years implementation experience with enterprise clients
Teams Chat	MS Gold Collaboration	Over 5 years implementation experience with enterprise clients
OneDrive for Business	MS Gold Modern Work	Over 10 years implementation experience with enterprise clients
Azure Right Management Services	MS Gold Security	Over 5 years implementation experience with enterprise clients
Azure Information Protection	MS Gold Security	Over 5 years implementation experience with enterprise clients
Azure Purview	MS Gold Security	Over 5 years implementation experience with enterprise clients (This product suite has recently been re-named Purview)
Digital Rights Management	MS Gold Security	Over 5 years implementation experience with enterprise clients
Security and Compliance Center	MS Gold Security	Over 5 years implementation experience with enterprise clients
eDiscovery Platform	MS Gold Security	Over 5 years implementation experience with enterprise clients
Exchange Server and Outlook client	MS Gold Messaging	Over 10 years implementation experience with enterprise clients

MWD Phase 1 Priority	System	Cloud/ Hosted	Standard or Custom Integration?	Standard Integration provided by	Custom Integration Description	Integration Cost
X	Oracle EBS – accounting	X	Standard	NathCorp	We expect to use standard APIs for this connection; however, depending upon the level of application customization, the interface may require coding	See cost proposal
X	Oracle PeopleSoft -- HRIS	X	Standard	NathCorp	We expect to use standard APIs for this connection; however, depending upon the level of application customization, the interface may require coding	See cost proposal
X	Bentley ProjectWise -- project management	X	Standard	NathCorp	We expect to use the Bentley Web Services Gateway for this connection	See cost proposal

MWD Phase 1 Priority	System	Cloud/ Hosted	Standard or Custom Integration?	Standard Integration provided by	Custom Integration Description	Integration Cost
	Bentley MicroStation 3D CAD		Standard	NathCorp	We expect to use the Maximo Rest API for integration	See cost proposal
X	Maximo -- maintenance management					
	Sensis – web content management					
	Esri ArcGIS Pro, ArcMap Desktop, and ArcMap GIS Asset Management – GIS					
	Engineering has an additional 40+ systems for which custom integration will be considered on a project basis.					

Non-Microsoft content related systems in-use at Metropolitan are listed.

System	Certifications	Brief Description of Implementation Experience	Notes
Nintex Workflow and EForms		5 years of experience deploying, administering, training and developing Nintex Workflows and Forms for a large Financial Services Firm	

Bentley ProjectWise		Implemented and connected to ProjectWise as part of various projects with financial/banking clients	
Gimmel Discover			
Gimmel Physical			
ProofPoint Cyber Security		10+ experience working with Proofpoint Email Security Protection.	We are familiar with the full Cyber Suite.

## ATTACHMENT I – ECM BUSINESS REQUIREMENTS QUESTIONNAIRE

Respond to the Metropolitan’s business requirements in the tables below. Metropolitan wishes to stay within the native Microsoft ecosystem as much as possible yet understands that third-party solutions may provide a better solution and allow users to manage content and/or processes more efficiently.

- In the column “Fulfilled by Standard Microsoft Functionality” briefly respond to the stated requirement with the best approach to fulfilling the requirement using standard Microsoft functionality available with the G5 license.
- In the column “Fulfilled by Third Party Solution or customization” briefly respond to the stated requirement with the best approach to fulfilling the requirement using third party solution Respondent or, if necessary, with custom development.
- In the column “Comments” add any additional information which would help Metropolitan determine the best approach to meeting the requirement.

Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
Capture	1.	<p>While reliance on paper has been greatly reduced across Metropolitan, there will be areas that will need an efficient means of scanning to a SharePoint Library.</p> <p>1. Describe Respondent’s approach for ad-hoc/desktop scanning; Adobe Acrobat Pro is in use in some areas of Metropolitan but not all. Discuss Respondents approach to ad-hoc desktop scanning.</p> <p>2. Scanning and metadata assignment will be as automated as possible with data extraction from Oracle or other business systems. Users will be forced to complete required metadata. Discuss Respondents approach to automating metadata assignment.</p> <p>3. Scanning interface will prompt user with a list of relevant ECM libraries from which to choose the content destination and default it upon future scanning actions. Discuss Respondents approach to library selection.</p> <p>4. Metropolitan will need fast, simple, one-step, purpose-specific scanning (such as packing list and BOL scanning at a receiving dock), which may be the same as general use ad-hoc scanning or different. Discuss Respondents approach to purpose-specific scanning.</p>	<p>1.1 Device Vendors built-in save to SharePoint feature</p> <p>1.2 Syntex, Azure Cognitive Services</p> <p>1.3 Library selection is based on users permissions</p> <p>1.4 Syntex will provide ability to extract metadata from scanned documents</p>		

Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
Capture	2.	<p>User-directed email management from the Outlook client presents a challenge for most staff across Metropolitan. Some staff use print-to-PDF as a means of saving emails to shared drives or SharePoint; others save as a native MSG or HTML file.</p> <p>As content collections are moved to ECM, a simple, comprehensive method of adding email messages and/or attachments to a library will be crucial for effective email management.</p> <p>Metropolitan requires the following Email functions; Respondent will discuss each item.</p> <ol style="list-style-type: none"> <li>1. User will be prompted with a list of relevant libraries from which to choose where to store content.</li> <li>2. User will be prompted to complete required ECM library metadata.</li> <li>3. User will be prompted whether to save attachments with the email.</li> <li>4. User will be given the option to select which attachments will be saved.</li> <li>5. User will be given the option to save attachments to a library with or without the email message.</li> <li>6. ECM will recognize when an email has been previously added to the library and the user will be prompted so they can decide whether their version of the email is unique and needs to be saved.</li> <li>7. Metropolitan prefers emails to be stored in PDF file format when declared as records. Respondent will describe how messages will be converted from MSG to PDF or PDF-A upon record declaration.</li> <li>8. Metropolitan desires to prohibit saving emails as HTML.</li> <li>9. User will be provided the option to convert email and/or attachments to PDF or PDF-A when saving to SharePoint.</li> <li>11. If Respondent recommends a third-party solution for user-directed email management, provide a brief</li> </ol>		<p>MacroView DMF will be deployed to the required users desktops.</p> <p>MacroView engineers will assist with the planning and testing of the deployment via Microsoft Intune or other enterprise software management platform.</p> <p>MacroView proposal includes 16 hours of support. Additional support can be purchased if needed.</p>	

Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
		statement of why Respondent prefers the vendor, describe Respondent relationship with the vendor and whether Respondent implements and supports Vendor solution.			
Capture	3.	When new content is added to SharePoint it will be important to identify duplicates between content existing in SharePoint and new content being added. 1. How will Respondent meet this requirement? 2. What data will be presented to the user to help them determine whether to add the new content?	Microsoft Symantic search + enrichment	Search index enrichment that will add or update Graph db entries for related and similar content	Document owners will be presented with the list of duplicate documents along with the list of documents that reference those documents
Import	4.	When shared drive content is added to SharePoint it will be important to identify duplicates between content existing in SharePoint and content coming from shared drive(s).  How will Respondent meet this requirement?	Microsoft Symantic search + content enrichment	Search index enrichment that will add or update Graph db entries for related and similar content	Document owners will be presented with the list of duplicate documents along with the list of documents that reference those documents
Import	5.	A significant backfile conversion of physical records was conducted across Metropolitan as stated in the introduction. Metropolitan plans to move these files and metadata to SharePoint using the following process: 1. The images will be provided on external drives. 2. Metropolitan will load images and metadata to shared drives. 3. Metropolitan will clean up the files/metadata if needed. 4. Active Nav will be used to complete the migration to SharePoint.  Respondent will offer comments on this approach, or a better approach, if available.			This approach seems acceptable
Import	6.	Metropolitan wants Respondent to assist with the import of existing content from shared drives. 1. What methods does the Respondent use to utilize existing data (such as taxonomies, MIP labels, folder names, file names, parsing folder and/or file names etc.) when migrating into SharePoint? (For instance, HR Benefits' paper files had 6 tabs; these tabs are		Proventeq Migration Accelerator	Built in migration reports and QA validation

Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
		document group values in the scanned metadata but should be content types in SharePoint.) 2. Does the Respondent have a method of migrating content while ensuring the integrity of inter-file links? 3. How do the Respondent migration tools ensure 100% file import accuracy?			
Import	7.	With file share ingestion, Metropolitan may consider using AI to extract data from structured and unstructured documents both scan-to-PDF (with OCR processing) and born digital.  Please discuss Respondent's experience using AI for data extraction including the level of success experienced.	Microsoft Syntex, Microsoft 365 Governance		We will be partnering with Microsoft on this engagement and will have access to the product teams in case of any issues.
Import	8.	Does Respondent have the capability to render documents into PDF or PDF/A during ingestion based on pre-established business rules? For example, any document with a retention rule of 'permanent' or 'over 20-years' will be rendered to PDF-A.	Microsoft Power Automate	<a href="#">Encodian Flowr</a>	
Import	9.	Metropolitan Engineering, Project Management, and Media work with very large files (3D models, satellite imagery, predictive models, etc.); upload/download speed to any cloud system has been an issue. What is Respondent's experience with managing very large files within M365?  Does Respondent recommend a hybrid solution for very large files?	The maximum file size for documents stored in SharePoint is 250 GB. In addition, Azure Blob Storage can store very large files in the TB range.	AvePoint for long-term data storage requirements	Meta data can be stored in SharePoint with a "Link to File" pointer to Azure Blob Storage if required. NathCorp to work with Metropolitan on specific use cases, testing and configuration adjustments. We have extensive experience with managing and moving large files over low bandwidth, unreliable connections.
Viewer	10.	What methods are used by the Respondent to display photos within SharePoint in a user-friendly way, such as the grids used by photo apps?		Open-source web part	NathCorp will work with Metropolitan on specific use cases and provide recommendations as needed.
Viewer	11.	Metropolitan will apply DRM restrictions and user restrictions for their photo collection and document which are available to the public. Photographic material includes: Historical material dating to 1927, engineering	Azure Information Protection		Documents and photos can use AIP labels. More controls are available if they are in the latest format.

Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
		and construction projects, ribbon cutting ceremonies, etc.  Discuss Respondent approach to the use of DRM to limit access to content.			
Viewer	12.	Standard row and column library presentation will not be appropriate for all users, especially when data will be merged from business systems or there are more data/columns than can be easily viewed. A dashboard view will be a better presentation, i.e., similar to traditional ECM systems' user interface.  Has Respondent created dashboard views in place of row/column view? If so, discuss.			NathCorp will work with Metropolitan to understand user interface requirements and develop custom SharePoint SPFx webparts and pages to satisfy identified requirements
Viewer	13.	Engineering using Bluebeam Revu for review, redlining, and annotations of drawings. There is interest in annotation across Metropolitan. Note: Metropolitan has 300 licenses of Adobe Acrobat Pro which are allocated to users.  Discuss Respondent's options for annotating images, scan to PDF images, born digital documents including PDF, Word, Excel, and PowerPoint.		Acrobat App SharePoint Integration	
Viewer	14.	Section 508 ADA requirements must be met by Metropolitan for public documents. How has Respondent met section 508 requirements for PDFs and other document types?	Power Automate Flows to automatically review pdfs identified for the public for missing tags	Adobe PDF Services API	
Search	15.	The foremost benefit to be derived from ECM will be Federated Search across content in most Metropolitan repositories and systems. Search will respect access rights and sensitivity labels (sensitivity labels exist in the ActiveNav database for content that was touched during the file share reorganization). Metropolitan envisions the following content storage locations will be included in the federated search: <ul style="list-style-type: none"> <li>• SharePoint on-premise</li> <li>• SharePoint 365 (cloud) including Teams sites</li> <li>• Shared drives</li> </ul>	Azure Cognitive Search	3 <sup>rd</sup> party, Open Source or custom Graph API Connectors	We believe the architecture diagram provided in the Approach section, as well as the details in Task 4 set out our proposed approach to Enterprise Search as well as the expected end user benefits.



Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
		<ul style="list-style-type: none"> <li>• ProjectWise</li> <li>• ContractSafe</li> <li>• Oracle (POs, contracts, etc.)</li> <li>• Possibly PeopleSoft HRIS</li> <li>• Possibly Maximo</li> </ul> <ol style="list-style-type: none"> <li>1. Discuss Respondent approach to Federated searching, including the above list, and any limitations that may exist.</li> <li>2. Describe Respondent approach for search to include robust, full-text capability; searches must allow for limiting search scope using one or more metadata datum. Full-text search will include text in PowerPoint slides. Full text search will honor all security rules.</li> <li>3. Respondent will discuss any limitations of search as it relates to SharePoint site collections, sites, libraries, on-premise and cloud SharePoint sites, and full text search capabilities.</li> </ol>			
Search	16.	<p>SharePoint has a list-results limit of 5,000 items. Metropolitan searches could easily exceed this limit - especially full text searches - by staff searching for critical data.</p> <ol style="list-style-type: none"> <li>1. How does the Respondent address the 5,000-item limit?</li> <li>2. Does Respondent have search-within-results as an option?</li> </ol>	SharePoint views should be configured in order to limit documents listed in any particular view		
Search	17.	<p>Metropolitan users like their shared drives. While they generally understand the value of assigning metadata to content, they want the ability to browse folder structures in SharePoint like they do with shared drives. As a philosophy, Metropolitan wants the user to have the most efficient search functions with minimal clicks necessary to locate relevant information; search functions may include <b>any combination</b> of folder navigation, metadata, and full text. (As one business unit stated, “we just want the shared drive in SharePoint and to be able to collaborate on the creation and editing of documents with both internal and external stakeholders.”)</p>	NathCorp will work with Metropolitan to identify use cases for users finding content and will combine custom views, custom enterprise search and custom pages to provide the most efficient approaches for users to find content.		

Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
		Respondent will discuss user navigation as described above.			
DRM	18.	Metropolitan will require expiring content links for both internal and external collaboration. Respondent will discuss how expiring links are managed and any issues Respondent has identified with using expiring links.	Built-in link expiration notifications and notification banner on the site		
Content Classification	19.	Metropolitan anticipates leveraging autoclassification to assign Content Types and Sensitivity Labels when ingesting content into SharePoint. Metropolitan has assigned sensitivity labels and has classified most content as described in the introduction. Metropolitan developed an enterprise-wide classification scheme (taxonomy) as part of the shared drive cleanup; the classification will be used by the AI solution to fine-tune autoclassification assignment. The Content Type and Sensitivity Labels assignment will be used for search and for the application of record retention policies. 1. Discuss Respondent's experience with autoclassification using Microsoft Syntex or other solutions. 2. Discuss how the Metropolitan Classification Scheme will be leveraged by the autoclassification engine.	NathCorp will work with Metropolitan to implement auto-classification and tagging. NathCorp has implemented multiple POC's on top of Microsoft Syntex for both auto-classification and meta data extraction. We have a close relationship with the Syntex team and will have access to the product team if needed		
Library Services	20.	MWD will require users to complete required metadata fields when adding content to the library. Discuss how Respondent will force metadata completion,	NathCorp will work with Metropolitan to identify the best approach for handling missing meta data which may include email/MS Teams notifications and the use of Adaptive Cards for efficient data capture		
Library Services	21.	Duplication of content is common in shared drives. With ECM, Metropolitan will have a single, master file with metadata pointers from multiple places in a library, site, or site collection to the master file.	Azure Cognitive Search	Custom Gremlin Graph database to keep track of document relationships	

Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
		Discuss any issues Respondent sees with this approach.			
Library Services	22.	<p>Metropolitan will need renditions of files in some libraries; for instance, rendering Word to PDF where the PDF will be linked to the Metropolitan web site or rendering records with 'permanent' retention to PDF/A.</p> <p>Describe Respondent's approach to automating document renditioning based on business rules; respond to each item below.</p> <ol style="list-style-type: none"> <li>1. Metropolitan desires an integrated rendition engine to convert any digital content to a new format (minimum of PDF/A, PDF/A-1, PDF/A-2, PDF/A-3, PDF/E, TIFF, TIFF Color, JPEG). If not integrated, provide approach to renditioning.</li> <li>2. Renditions may be converted into one or more formats; e.g. PDF and PDF/A.</li> <li>3. Renditions rules will be defined uniquely for each ECM library.</li> <li>4. System will allow for the designation of internal and external (public facing) rendition file formats.</li> <li>5. System will provide rules for rendering from original file formats to new format triggered upon record declaration.</li> <li>6. System will synchronize versions of original documents and renditions when original document is edited.</li> </ol>	Microsoft Power Automate Flows	Encodian Flow for PDF/A-x generation	
Library Services	23.	<p>Metropolitan requires flexible version control.</p> <ol style="list-style-type: none"> <li>1. Major and minor versions tied to retention rules and access rights which are variable by major/minor version and by site/library.</li> <li>2. Business rules will be required for lifecycle management of version when the final version has been declared; for instance, delete all version; move all version except the last two, which remain in the library, to a holding location then delete; keep all version, etc.</li> </ol>	NathCorp will work with Metropolitan to identify use cases and requirements and will deliver Microsoft Power Automate Flows to support those requirements		

Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
		Respondent will discuss each of the above items.			
Integration	24.	<p>ECM will use integration to data system for the following purposes.</p> <ol style="list-style-type: none"> <li>1. <b>Validate</b> metadata entered when new content is added to the library.</li> <li>2. <b>Retrieve and auto-populate</b> metadata fields when adding new content.</li> <li>3. <b>Retrieve metadata</b> fields to populate a user dashboard (see item 12).</li> <li>4. With GIS, retrieve content when user selects point or polygon on a map layer and retrieve all information associated with that point or polygon.</li> <li>5. Query data as part of a federated search (See item 15).</li> </ol> <p>Respondent will discuss each of the above items.</p>	Azure Cognitive search		
Off-line Content	25.	<p>Metropolitan engineering and maintenance staff work in the desert without internet access; Metropolitan envisions a “briefcase” function for ECM. Respondent will discuss each of the following items:</p> <ol style="list-style-type: none"> <li>1. Staff will download documents from the ECM while on-line then work with the documents while off-line. While offline, they will save documents/photos/annotated drawings, etc. to the “briefcase”. Upon reconnection to the ECM, the briefcase will synch with ECM. (e.g., Lotus Notes-like functions.) <ol style="list-style-type: none"> <li>a) Off-line functionality will include data validation tables for downloaded content.</li> <li>b) Briefcase functionality will prompt for metadata information when content is uploaded if off-line assigned metadata is not complete.</li> <li>c) Briefcase will prompt for Revision Notes when content is uploaded.</li> </ol> </li> </ol>	OneDrive Sync to SharePoint Online folders		

Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
		2. Briefcase will store encrypted data.			
Records Management	26.	Metropolitan currently uses Gimmal Physical to manage physical records collections and Legal uses Gimmal Discovery. Metropolitan is aware of Gimmal Records Manager as a complement to native SharePoint information governance capabilities.  Does Respondent with experience implementing Gimmal Records Manager? Does Respondent recommend using Gimmal Records Manager and if so, why?			We do not have this experience; however, we believe an alternate approach may be viable after discussion with Metropolitan
Records Management	27.	Metropolitan has rapidly expanded the use of Teams over the last 2 years. Metropolitan needs Teams to conform to all governance rules.  Please describe Respondent implementation experience configuring Teams to fulfill IG/lifecycle requirements.			We have extensive experience in Teams implementations of various types and have conducted several project to review Teams Governance and how it should be modified as Teams usage has expanded and evolved.
Records Management	28.	Metropolitan seeks an approach to Long Term Digital Preservation (LTDP). Much of the physical archive that was scanned over the last three years has permanent retention and must be securely and consistently protected.  Please describe Respondent's approach to LTDP either using the Microsoft ecosystem or, if preferred, a third-party solution. Does solution adhere to the Open Archival Information System (OAIS) Reference Model (ISO 14721).	SharePoint Records Management	AvePoint Archiver	Preservice may offer an option for this requirement. Further discussion regarding Use Case is required
Accessibility	29.	Some of the data that will reside in the ECM requires 24/7/365 access. Today, areas requiring 24/7/365 access keep paper files, use local drives or other means of insuring access to critical data.  What method would the Respondent recommend for accommodating 24/7/365 access should an event occur	Built-in data redundancy provided by Microsoft 365 & Azure		

Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
		that isolates a location from communication networks (i.e., earthquake).			
Infrastructure	30.	All changes to user rights will be audited.  Respondent will state compliance.	Azure AD Audit logs MS Purview Logs Azure Sentinel		
Infrastructure	31.	Access Rights management will be delegable.  Respondent will state compliance.	SharePoint Online and Microsoft 365 permissions		
Infrastructure	32.	The Legal and Survey departments will require on-premise SharePoint sites. Depending on the response to questions #9 (re. very large files), other areas of Metropolitan may also require on-premise sites.  Discuss Respondent experience with hybrid SharePoint environments.			We have experience with SharePoint Hybrid as part of SharePoint on premise to SharePoint online migrations.
Contract Management	33.	Metropolitan stores groupings of contracts in the following systems: <ul style="list-style-type: none"> <li>Oracle Financials – procurement-based contracts</li> <li>ProjectWise – construction contracts</li> <li>ContractSafe – all other “miscellaneous” contracts such as grants, water service connections, confidential legal agreements, easements, etc.</li> </ul> Metropolitan prefers a contract management system (CMS) built on SharePoint. Metropolitan has already extracted basic metadata for contracts that reside in ContractSafe (start/end dates, key contact, counterparty, contract type). Contracts stored in Oracle will remain in place. Respondent will discuss their experience with Contract Management in SharePoint; include in-house or third-party solutions Respondent supports.			We have limited experience with contract management in SharePoint; we understood this was not in scope for this effort.
Board Letters	34.	Respondent will describe any experience with implementing Board Letter creation and approval process in SharePoint or other software.	Worked with Geraldine Walters		

Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
			to implement the original SharePoint Board Letter Approval Process for MWD		
@Conversion	35.	<p>Metropolitan currently uses FileNet Content Services v5.4 primarily for engineering materials. FileNet conversion to SharePoint will be a priority.</p> <p>1. Does Respondent have experience converting FileNet Content Service v5.4 to M365 SharePoint? If so, please briefly describe experience.</p> <p>2. FileNet content was processed through an OCR engine over 2 decades ago. Metropolitan will take advantage of modern OCR to reprocess FileNet content either as part of the conversion effort or after importation into SharePoint. Does Respondent offer options for OCR of the content as part of FileNet conversion services? How would Respondent approach OCR of existing FileNet content?</p>	Microsoft Syntex		We have significant experience with data migration and have some familiarity with FileNet. We suggest Metropolitan consider a “re-OCR” process as part of document ingestion to ensure it aligns with current formats, etc.
Exchange Public Folders	36.	<p>Metropolitan has an extensive collection of Exchange Public Folders; there are approximately 55,000 Public Folders on Exchange Online. Typical Public Folder usages are team calendars, shared mailboxes (mostly to receive and process various requests), and email archiving. Some of the current challenges with Public Folders are searching, permission management, and ease of use. Metropolitan will migrate relevant Public Folders to M365 Groups.</p> <p>Discuss Respondent experience migrating Public Folders to M365 Groups, to SharePoint or another platform.</p>		Proventeq Migration Accelerator	
Technical Manuals	37.	<p>Metropolitan’s uses a software product for the creation and management of our extensive collection of on-line technical manuals; this product has been sunsetted.</p> <p>What experience does the Respondent have implementing on-line manuals in SharePoint or another product? Respondent may request the Metropolitan requirements document if more information is desired on this topic.</p>	The NathCorp DocSync application will synchronize, distribute and update many file types and was initially developed for Hawaiian Airlines to manage, distribute and update electronic Flight Manual, Flight Plan,		

Group	Question Number	Business Requirement	Fulfilled by Standard Microsoft Functionality	Fulfilled by Third Party Solution or customization	Comments
			NOTAMs and other critical pilot documents. The application is designed specifically for low bandwidth, highly regulated environments		
Document Collections	38.	Metropolitan Engineering and Project Management uses collections of large files to propagate complex reports. There can be 100s of files, many of which have links. Gathering and managing the document collection to ensure the child documents and parent document are preserved is a headache.  Discuss Respondent's approach to address this issue.	Microsoft Azure Gremlin Cosmos Graph Db to keep track of document relationships		
Digital Asset Management	39.	Artificial intelligence should be available to identify and classify assets based on objects and/or people in images.  Discuss Respondent's experience with these features / tools.	NathCorp has implemented multiple POC's on top of Microsoft Syntex for both auto-classification and meta data extraction. We have a close relationship with the Syntex team and will have access to the product team if needed		
Digital Asset Management	40.	Real-time content workflow availability.  Discuss Respondent experience with implementing content workflows as it specifically relates to Digital Asset Management.	NathCorp has implemented numerous Windows Workflow Foundation Workflows, Nintex Workflows and Power Automate Flows		
Virtual Assistant / Chatbot	41.	Metropolitan is beginning to use virtual assistant / chatbot capabilities for service management.  What experience does the Respondent have implementing virtual assistant / chatbot capabilities in an ECM environment? Discuss compatibility.	We have developed Chat Bots in POC and Experimental environments		





**Business Outreach Program**  
**(Criteria Six)**  
**(Attachment A)**

## Attachment A: RESPONDENTS PARTICIPATION FORM

### THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

RFP No. 1335

This form shall include all prime consultants, partners and sub-consultants

LIST ALL PARTIES PROVIDING SERVICES			PERCENTAGE OF THE PROPOSED COST		
Name Address Telephone E-mail address	Relationship: Prime, Joint Venture, Sub-consultant	Type of Work to be Completed	Percentage of Services (RFP Only)	*SBE Yes/No	**DVBE Yes/No
Resua.io, Anaheim, CA	Sub-consultant	Program Management and Implementation Services	25%	Yes	Yes
Crayon, Dallas, TX	Sub-consultant	Implementation Services	20%	No	No
Brainstorm, American Fork, UT	Sub-consultant	End user training program	Less than 2%	No	No
AvePoint, Jersey City, NJ	Sub-consultant	Data Archiving Application	Less than 2%	No	No
MacroView, Sydney, Australia	Sub-consultant	Email Saving Application	Less than 2%	No	No
ProvenTeq, Austin, TX	Sub-consultant	Data Migration Application	Less than 5%	No	No
NathCorp, Irvine CA (RBE)	Prime	All other services	50%+	Yes	No
Total:					

\*SBE: A Small Business Enterprise is independently owned and operated; is not dominant in its field; and meets the criteria set forth by the Small Business Administration in Title 13, Code of Federal Regulations, Part 121.

\*\*DVBE: A Disabled Veteran Business Enterprise is independently owned and operated; is not dominant in its field; and meets the criteria set forth by the Veterans Benefit Act of 2003 (15 U.S.C. 657f) AND BY the California Department of General Services (DGS), Procurement Division (PD), Office of Small Business and DVBE Certification (OSDC)

**Respondent's Contact Information Form**  
**(Attachment E)**

**Attachment E: RESPONDENT'S CONTACT INFORMATION FORM**

<b>Respondent Information</b>		
Name of Firm (As it appears on W-9 Tax form)	NathCorp	
Type of Firm: Check only <b>one</b> appropriate box for federal tax classification of the firm/person whose name is entered above.	<input type="checkbox"/> Individual/Sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input checked="" type="checkbox"/> <b>X S Corporation</b> <input type="checkbox"/> Partnership <input type="checkbox"/> Limited Liability Company, Tax Classification: _____ (Enter Tax Classification: C=C Corporation, S=S Corporation, P=Partnership)	
Other Name(s) of Firm (with acronym)	NA	
D&B Duns #	108979770	
PlanetBids Vendor ID #	1101144	
Business Address City, State, Zip Code (For Contract Correspondence)	1 Park Plaza, Suite 930, Irvine, CA 92614	
List local business office address in Metropolitan's service area.	1 Park Plaza, Suite 930, Irvine, CA 92614	
Main Telephone	949/522-6902	
Contact Name (Mr./Ms.)	Mr. Simon Palmer	
Contact Telephone /Facsimile	Telephone: 714/ 615-6051	Facsimile:
Contact E-mail Address	Simon.palmer@nathcorp.com	
<b>Sub-consultant(s) Information</b>		
Firm Name	Resua.io	
Address	917 East Mason Lane #21	
City, State & Zip	Anaheim, CA 92805	
Firm Name	Crayon	
Address	12221 Merit Dr., Suite 800	
City, State & Zip	Dallas, TX 75251	
Firm Name	Brainstorm	
Address	10 South Center St	
City, State & Zip	American Fork, UT 84003	
Firm Name	AvePoint	
Address	525 Washington Blvd., Suite 1400	
City, State & Zip	Jersey City, NJ 07310	
Firm Name	MacroView	
Address	Level 12, 171 Clarence Street Wynyard, Sydney	
City, State & Zip	Sydney, NSW 2000	

Firm Name	ProvenTeq
Address	6500 River Place Blvd., Building 7, Suite 250
City, State & Zip	Austin, TX 78730

**Respondent's Compliance Form**  
**(Attachment F)**

## Attachment F: RESPONDENT'S COMPLIANCE FORM

Name of Firm: NathCorp

**RESPONDENT SHALL RESPOND HEREIN TO EACH OF THE SECTIONS BELOW AS REQUESTED.  
YOU MAY ATTACH ADDITIONAL SHEETS IF NEEDED.**

### **Validity of Proposal**

Responses to this RFP shall be valid for a period of at least twelve (12) months. Submissions not valid for at least twelve (12) months will be considered non-responsive. The Respondent shall state herein the length of time for which the submitted Proposal shall remain valid.

Include your response here:

Accepted: Proposal shall remain valid for 12 months.

### **Statement of Compliance**

Respondent shall include in this section either a statement of compliance with all parts of this solicitation (terms and conditions, scope of services, sample agreement, etc.) or a list of exceptions. The list of exceptions must include: suggested rewording / changes; reasons for submitting the proposed exception; and any impact the proposed exception may have on the services to be provided.

Include your response here:

Accepted: We are comfortable with Metropolitan Terms and Conditions and have set out various assumptions and out scope items in our Technical Approach

### **Certificate of Insurance**

Respondent shall state herein the willingness and ability to provide the required insurance coverage and ACORD insurance form. Insurance requirements are listed in Section 1 herein and in the Sample Agreement. Metropolitan shall request the actual ACORD insurance form when recommendation for award is made.

Include your response here:

Accepted: we will provide current ACORD COI at time of bid award.

### **Financial Information**

Respondent must indicate herein its willingness to provide this information. If requested, Respondent shall submit a complete financial statement for the two most recent years, prepared in accordance with generally accepted accounting principles. The financial statement must include a balance sheet and income statement and if requested shall be submitted as audited financial statements. Respondent must be prepared to substantiate all information shown. At its discretion, Metropolitan may accept other financial information that allows for an analysis of the Respondent's financial condition. For agreements valued at \$100,000 or more, Metropolitan may require a Dunn and Bradstreet report on respondent(s) recommended for agreement award.

Include your response here:

Accepted: NathCorp will provide the required financial information and D&B report when requested.



**Conflict of Interest Form**  
**(Attachment G)**

## Attachment G: RESPONDENT'S POTENTIAL CONFLICTS OF INTEREST FORM



Prime Consultant/Contractor: NathCorp

Sub-Consultant/Contractor: \_\_\_\_\_

**All sub-consultants/contractors must complete a disclosure form as well as the Prime.**

**If this form is completed by a sub-consultant/contractor, please check this box.** ☐

### BACKGROUND AND PURPOSE

State law and Metropolitan's internal ethics rules prohibit Metropolitan directors, officers, and employees ("Metropolitan officials") from making, participating in making, or attempting to influence any Metropolitan decision in which they have a triggering personal financial interest. A Metropolitan official may have a personal financial interest in a decision if it would foreseeably and materially affect the expenses, income, assets or liabilities of the official or an immediate relative as defined below. In some cases, a financial conflict of interest can render a contract void and require restitution of all payments, even for work already performed. Conflicts of interest also can expose individuals to administrative or criminal penalties. In many cases, the conflict can be avoided if the Metropolitan official formally recuses himself or herself from the decision-making process.

Receiving or soliciting political campaign contributions also can require a Metropolitan director to publicly disclose the conflict and take no part in the decision-making process.

The following questions are designed to assist Metropolitan and its officials, as well as the consultant, vendor, contractor, or any sub-consultants or contractors, to recognize and avoid financial conflicts of interest. The details (such as dollar amounts) are based upon criteria within Metropolitan's internal ethics rules or state law. Metropolitan's Ethics Office will review and advise whether any actual or potential disqualifying conflicts exist, and review options for avoiding a conflict. Metropolitan may seek additional information from you to evaluate potential conflicts prior to any final decision.

All respondents (consultants, vendors, contractors or any sub-consultants or contractors) must respond to each of the following questions to the best of their knowledge. For any "yes" response, please provide a thorough explanation. (You may attach additional sheets.) Failure to fully disclose information or potential conflicts may result in disqualification or rejection of the subject proposal, agreement, or contract.

*If you have any questions or concerns about the requirements or how to respond to these questions, please contact Metropolitan's Contract Analyst.*

## QUESTIONS

1. Have you been employed by Metropolitan within the past 36 months?

[Yes] ☐ [No] ☒

IF YES, PROVIDE DETAILS BELOW:

2. Have you or your firm employed or contracted for the services of or otherwise made payments to any individual(s) who served as a Metropolitan director, officer, or employee within the past 36 months?

[Yes] ☐ [No] ☒

IF YES, PROVIDE DETAILS BELOW:

If "Yes", did this individual advise you on or participate in formulating your submittal?

[Yes] ☐ [No] ☒

IF YES, PROVIDE DETAILS BELOW:

3. Do any current Metropolitan directors, officers, employees, or consultants, or their immediate relatives, have any of the following financial relationships with you, your company, or with any proposed sub-consultant or contractor?

For purposes of this question, "Immediate relative" means any spouse, domestic partner, child or step-child (including adults), parent or step-parent, parent-in-law, sibling, grandparent, or grandchild.

***(Check all that apply)***

Owner	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Member	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Partner	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Officer	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Employee	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Consultant	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Contractor	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Broker	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Investor of \$2000 or more	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Landlord or Tenant	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Other financial arrangement	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>

IF YES, PROVIDE DETAILS BELOW:

If "Yes", did this individual advise you on or participate in formulating your submittal?

[Yes] ☐ [No] ☒

IF YES, PROVIDE DETAILS BELOW:

----------------------

4. Within the past 12 months, have you or your firm provided anything listed below to any Metropolitan official, employee, director, consultant or his/her immediate relative?

Gift or gifts (such as food, beverage, entertainment, or travel) totaling \$50 or more in value	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Income (i.e., as an employee, consultant, supplier, service Respondent, etc.) totaling \$500 or more in value	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Loan or loans of \$500 or more	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Loan repayments of \$500 or more	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>

IF YES, PROVIDE DETAILS BELOW:

----------------------

If "Yes" to any of the above, did this individual advise you on or participate in formulating your submittal?

[Yes] ☐ [No] ☒

IF YES, PROVIDE DETAILS BELOW:

----------------------

5. Within the past 12 months, have you or your firm offered or discussed potential employment or any other business opportunities with any Metropolitan director, official, employee or their immediate relative?

[Yes] ☐ [No] ☒

IF YES, PROVIDE DETAILS BELOW:

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If "Yes", did the individual(s) advise you on or participate in formulating your submittal?

[Yes] ☐ [No] ☒

IF YES, PROVIDE DETAILS BELOW:

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6. Within the past 12 months, have you or any of your officers, employees, or agents:

Made a political contribution of \$250 or more to the campaign or committee of any member of Metropolitan's Board of Directors who is an elected official or candidate for elective office?	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>
Received any solicitation for a political campaign contribution of \$250 or more from any member of Metropolitan's Board of Directors or its General Manager?	[Yes] <input type="checkbox"/>	[No] <input checked="" type="checkbox"/>

IF YES, PROVIDE DETAILS BELOW

Daryl W. Sansevero

**Name (type or print)**

NathCorp

**Company**

Director

**Title**

2/9/2023

**Date**

X