

**ARMA**  
**INFOCON**  
17-20  
OCTOBER  
2021  
COMMUNITY THROUGH CONNECTION

The logo features the word 'ARMA' in a white, italicized, sans-serif font, partially enclosed by a white arc. Below it, 'INFOCON' is written in a large, bold, white, sans-serif font. To the left of the 'CON' part of 'INFOCON', the dates '17-20', 'OCTOBER', and '2021' are stacked vertically in a smaller, white, sans-serif font. At the bottom, the tagline 'COMMUNITY THROUGH CONNECTION' is written in a white, sans-serif font.

# Streamline Access to Public Records with a Modern EDMS

Advanced Information Concepts





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## Glenn Frederickson

Since 2007, Glenn has managed BPO (business process outsourcing) client engagements. He brings 30+ years of project management, technology and consulting experience, and solutions design. He is the Project Manager for the LDEQ Contract since 2010.



## Tina Gibeson, PhD, CRM

Tina is Senior Records Analyst at Access Sciences. Now in her sixth year at LDEQ, her areas of responsibility include all aspects of records lifecycle management, procedure development, agency records training, and disposition and retention processes.

# Presentation Overview

EDMS Early History

EDMS Rewrite Project

- Overview
- Key Systems Considerations
- Change Management Strategies
- Statics and Key Metrics
- Challenges and Success

EDMS Feature Demonstration



Re: Implementation of EDMS

Dear Ms. Peneguy:

On behalf of the Tulane Environmental Law Clinic, I convey our appreciation for the work you and your colleagues have expended to make LDEQ records increasingly more available to the public through EDMS. Certainly, making public records more accessible to the public produces benefits for us all.

Undoubtedly, this was a monumental task and you should be commended for bringing it through the pilot phase and beyond. EDMS is already an important tool for our attorneys, our students, and our clients. We look forward to its expansion and any improvements that you consider as the system matures.

Please share our gratitude and congratulations to the other members of the LDEQ team who have worked so hard to implement this system.

Very truly yours,



Mike Murphy  
Community Outreach Director

## DEQ public records posted on Web site

By The Associated Press

Louisiana residents may now access state Department of Environmental Quality public records from their home, office or anywhere they have Internet access, the department has announced.

**POTPOURRI**  
Department of  
Environmental Quality  
Office of Management  
and Finance  
Information  
Services Division  
**Electronic Document  
Management System**  
(0607Po:7)

The Department of Environmental Quality (DEQ) will offer a pilot version of its Electronic Document Management System (EDMS) for public use on the Internet beginning August 1, 2006. The EDMS is an electronic repository of official records that have been created or received by DEQ. In keeping with the

"DEQ Public Records Posted on Web Site," (2006, September 5). Advocate, p. 17.

"Potpourri," (2006, July 14). Advocate, p. 59.

# EDMS: Where it Started

## August 2006

The Louisiana Department of Environmental Quality (LDEQ) rolls out a state-of-the-art public records database

The Electronic Document Management System (EDMS) makes it possible for employees and the public to access records electronically

# Benefits of EDMS

## LDEQ Employees and Staff

- Eliminate file rooms and associated staff processes
- Immediate, real-time access to needed information
- Easily share files across departments, offices, divisions

## Public Users

- Eliminated travel requirement to regional offices
- 24/7 access to LDEQ documents
- Streamlined process for requesting public records



## Improved Information Governance

- Centralized scanning and record processing
- Standardized metadata/indexing schemes
- Manage born digital, paper, and non-paper records through one process
- Centralized disposition management

## Legal and Compliance

- Streamline record retrieval for e-discovery, subpoena, and litigation-related requests
- Legal hold implementation

## Reduced Costs

- No off-site storage costs
- Reduced overhead/processing costs for public records technicians or file room staff

# Since then, EDMS has evolved



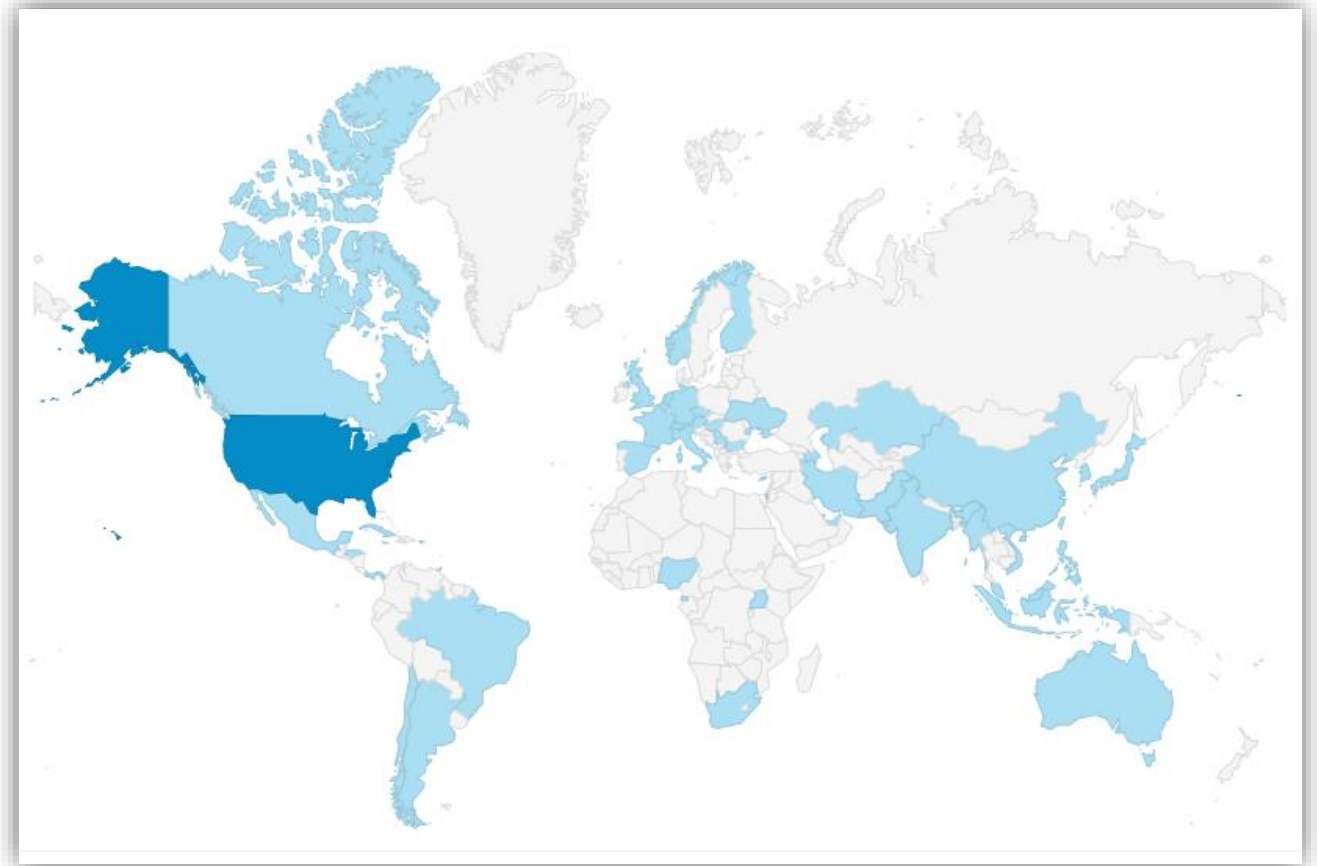
7.25 Million Documents

~5,000 users/month



~170,000 page views/month

Local, Regional, National, and International Access





# BUT, after 15 years, EDMS is showing its age

## Limitations

- Outdated user-interface, style
- Compatibility issues
- Sluggish Performance
- Lacking functionality
- Low recall and precision for document retrieval
- Steep learning-curve and unintuitive search strategy

The screenshot displays the EDMS Document Search interface. The top navigation bar includes 'Find Documents', 'Document Search', and 'Public Records Req'. A sidebar on the left contains 'Help' (About EDMS, FAQ, Troubleshooting Guides & Manuals, Contact Us, What's New?) and 'EDMS Project News' (April 2021 Update, March 2021 Update, February 2021 Update, EDMS Sneak Peek, January 2021 Update, December 2020 Update, November 2020 Update, October 2020 Update, September 2020 Update, August 2020 Update). The main search area is titled 'Document Search' and includes a link for 'April 2021 EDMS Project update, click here'. Search filters include 'AI' (with a 'Lookup AI' button), 'Date' (Between), 'Document ID', 'Media' (Accident Prevention, Air Quality, Asbestos, Biosolids, Ground Water, Hazardous Waste, Inactive & Abandoned Sites), 'Function' (Agency Governance, Air Emissions Inventory, Air Modeling, Air Monitoring and Analysis, Air Planning, Air Stack and Tank Testing, Aquifer Evaluation and Protection), 'TEMPO Activity Number', 'Description', 'Document Type' (Analytical Data, Boards and Commissions, Compliance, Correspondence-Internal, Correspondence-Received, Correspondence-Sent, Financial), and 'Document Subtype' (ADVF, Agreement/Contract, Air, Annual, Application, Application-Personal Affidavit, Assessment/Investigation). 'Run', 'Count', and 'Reset' buttons are at the bottom right.

results 1 - 100 of 32,263; 100 results per page

	Document ID	AI	Document Type	Document Subtype	Date	Description
1	12520833	18220	Reports	DMR	12/31/2021	LAGS30275 - 001 - Y
2	12520871	173870	Reports	DMR	12/31/2021	LAGS33805 - 001 - Y
3	12525579	18139	Reports	DMR	12/31/2021	LAGS30036 - 001 - Y
4	12525637	153186	Reports	DMR	12/31/2021	LAGS32391 - 001 - Y
5	12525763	203138	Reports	DMR	12/31/2021	LAGS35442 - 001 - Y
6	12526714	43775	Reports	DMR	12/31/2021	LAGS30580 - 001 - Y
7	12527158	42948	Reports	DMR	12/31/2021	LAGS30437 - 001 - Y
8	12527201	75742	Reports	DMR	12/31/2021	LAGS33617 - 001 - Y

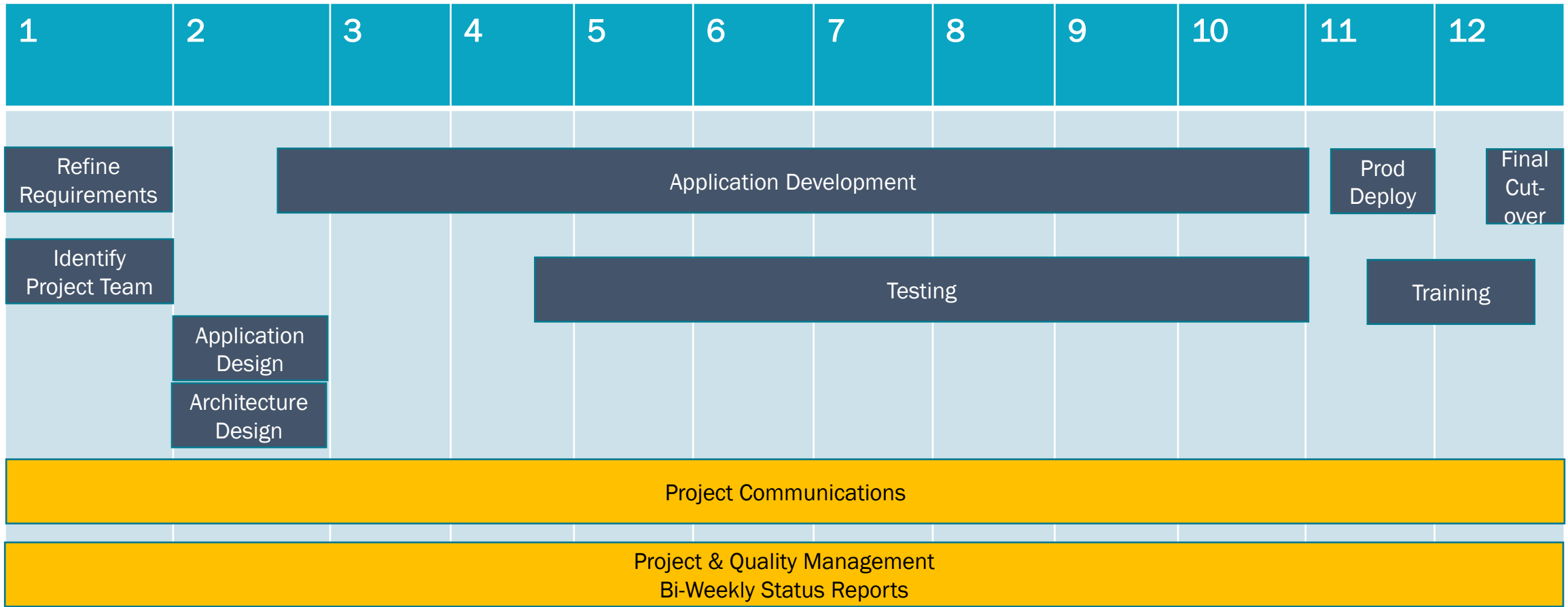
# EDMS Redesign

What can we do to make it more Google Like?

-- Karyn Andrews  
-- LDEQ Undersecretary



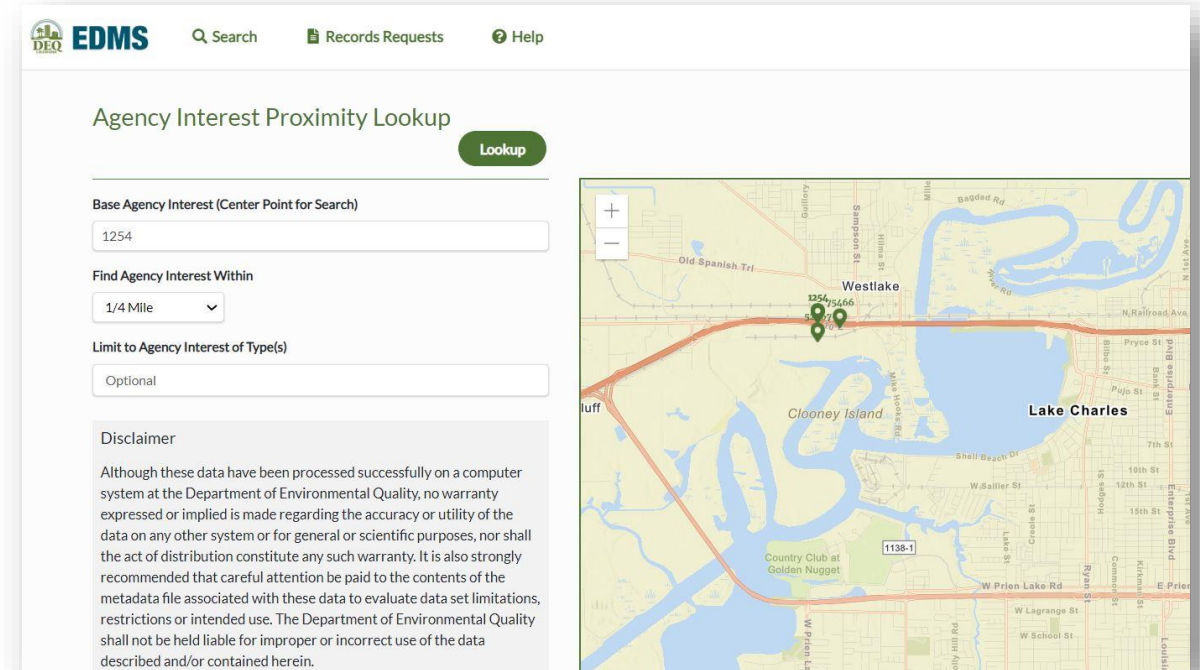
# Project Overview: Schedule and Key Components



# Key System Components: New Features

## User Experience

- Updated UI matching LDEQ website design
- Improved process screens
- Agency Interest (AI) mapping





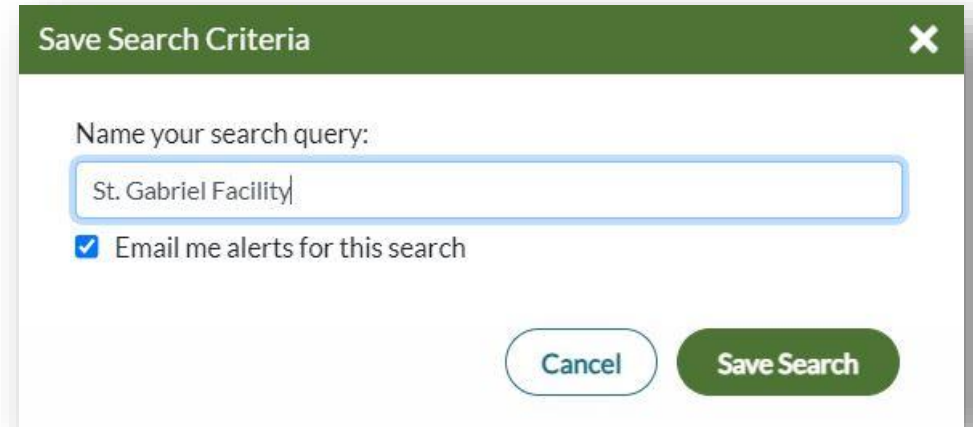
# Key System Components: New Features

## User Experience

- Updated UI matching LDEQ website design
- Improved process screens
- Agency Interest (AI) mapping

## Customization and Preferences:

- EDMS user account for public and LDEQ
  - Save frequently used searches
  - Email alert notifications



Save Search Criteria

Name your search query:

St. Gabriel Facility

Email me alerts for this search

Cancel Save Search

## My Saved Searches

Email alerts notify you whenever new DEQ documents match a saved search. EDMS records are scanned once each day for new documents. If any new documents match the saved query an email notification will be sent to notify you.

St. Gabriel Facility

Run Search

Email me alerts for this search

Rename



# Key System Components: New Features

## User Experience

- Updated UI matching LDEQ website design
- Improved process screens
- Agency Interest (AI) mapping

## Customization and Preferences:

- EDMS user account for public and LDEQ
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  - Email alert notifications

## Search Enhancements:

- Refine searches using filters
- Separate quick and advanced search
- Dynamically change search layout screen
- Toggle between two display types

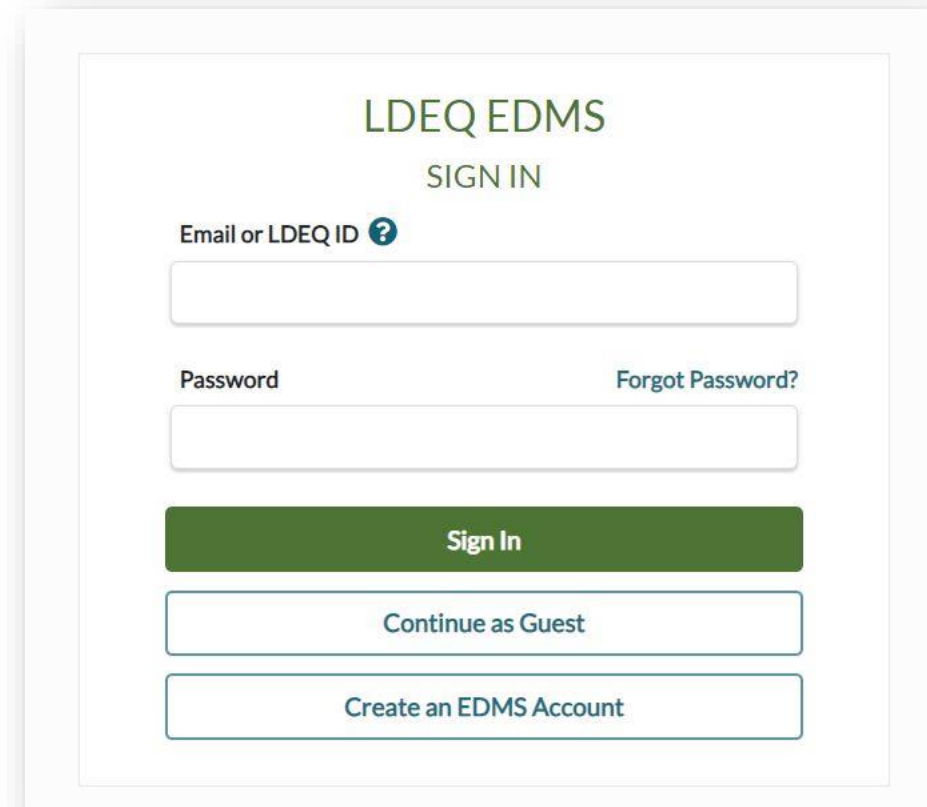
The screenshot displays the EDMS web application interface. At the top, there is a search bar containing the number '1238' and a 'Search' button. Below the search bar, there are navigation tabs for 'Search', 'Records Requests', and 'Help'. A sidebar on the left titled 'Filter by' contains several filter categories: Document Date, Media (with sub-items like Ground Water, Hazardous Waste, etc.), Function (with sub-items like [Blank], Air Emissions Inventory, etc.), Document Type, Document Subtype, and Associated AI. The main content area shows a table of search results. The table has columns for Document ID, AI, and Document Type. The results are paginated, showing page 1 of 1. The table contains several rows of data, including document IDs like 12812161, 12769803, 12769423, 12775421, 12769878, 12769880, 12754033, 12747951, and 12749247, all associated with the AI value 1238. The document types include Reports, Permits, and Correspondence-Sent.

Document ID	AI	Document Type
12812161	1238	Reports
12769803	1238	Permits
12769423	1238	Permits
12775421	1238	Reports
12769878	1238	Permits
12769880	1238	Permits
12754033	1238	Correspondence-Sent
12747951	1238	Financial
12749247	1238	Permits

# Key System Components: Security and Access

## User Authentication

- 3 user levels: LDEQ employee, registered public user, guest
- Roles and privileges differ by level



The screenshot shows the LDEQ EDMS Sign In page. At the top, it says "LDEQ EDMS" in green and "SIGN IN" in black. Below this, there is a form with three input fields and three buttons. The first input field is labeled "Email or LDEQ ID" with a question mark icon. The second input field is labeled "Password" and has a "Forgot Password?" link to its right. The third input field is empty. Below the input fields are three buttons: a green "Sign In" button, a white "Continue as Guest" button, and a white "Create an EDMS Account" button.

# Key System Components: Security and Access

## User Authentication

- 3 user levels: LDEQ employee, registered public user, guest
- Roles and privileges differ by level

## Access Restrictions and Security

- Tiered document access protection based on users roles:
  - Access Right 1: Public/LDEQ
  - Access Right 2: LDEQ
  - Access Right 5: Authorized LDEQ only

## Public Restricted Access Message



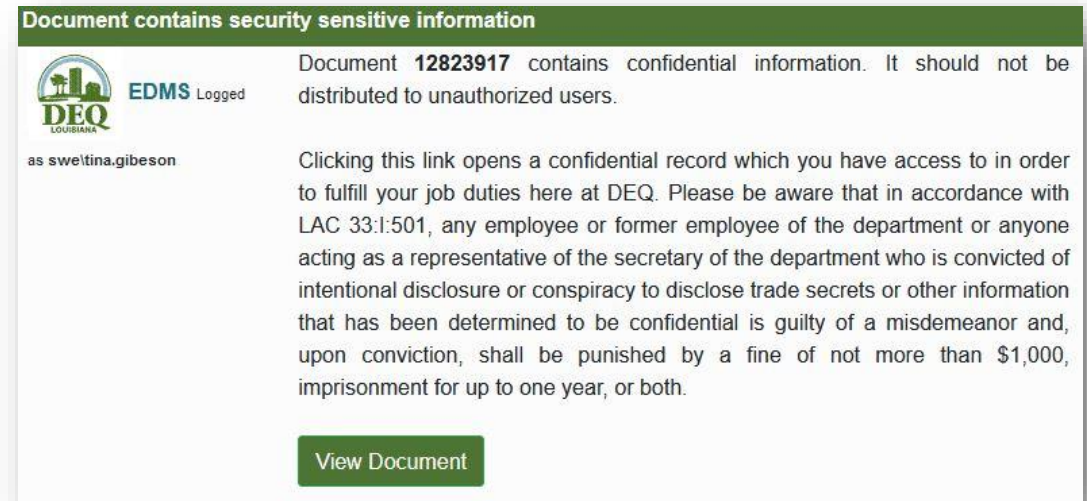
**Document access denied**

 **EDMS**


Document **12815607** contains security sensitive information. To view this document, please [submit a public records request](#).

Logged as public

## LDEQ Authorized to View Confidential Access Message



**Document contains security sensitive information**

 **EDMS** Logged

as sweltina.gibeson

Document **12823917** contains confidential information. It should not be distributed to unauthorized users.

Clicking this link opens a confidential record which you have access to in order to fulfill your job duties here at DEQ. Please be aware that in accordance with LAC 33:1:501, any employee or former employee of the department or anyone acting as a representative of the secretary of the department who is convicted of intentional disclosure or conspiracy to disclose trade secrets or other information that has been determined to be confidential is guilty of a misdemeanor and, upon conviction, shall be punished by a fine of not more than \$1,000, imprisonment for up to one year, or both.

[View Document](#)



# Key System Components: Security and Access

## User Authentication

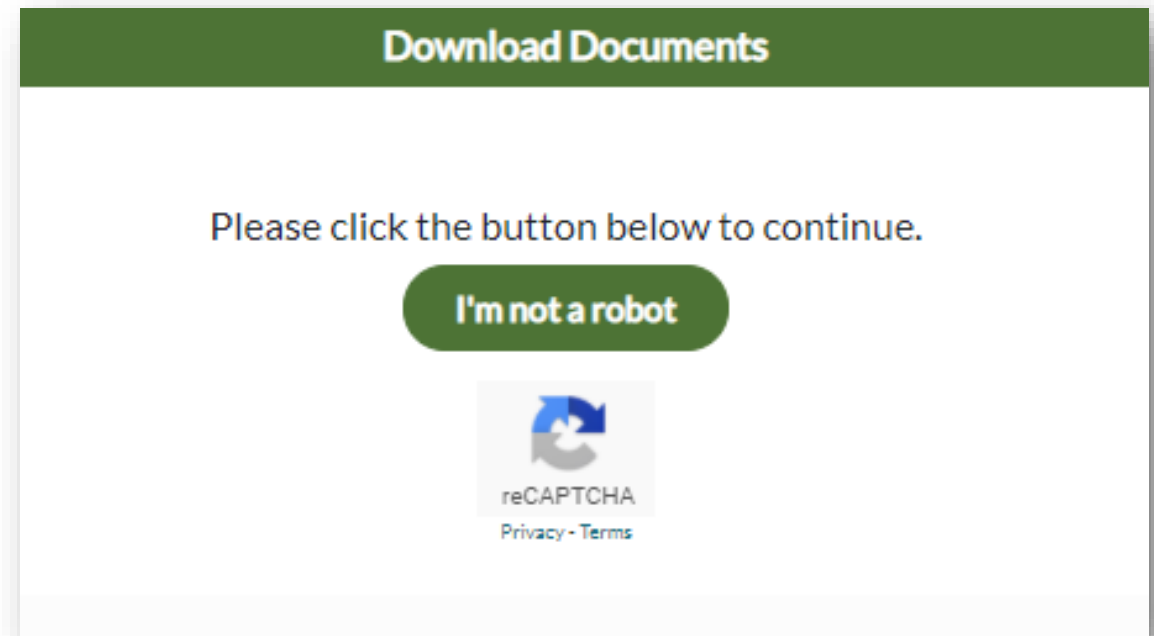
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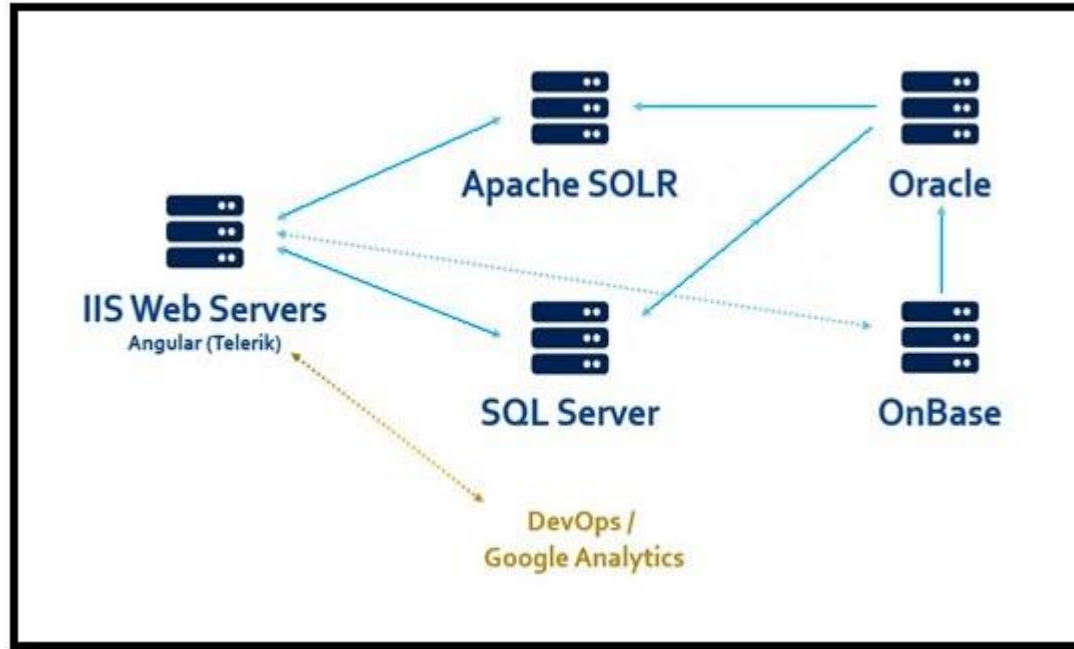
## Session Captcha for Document Access

- 1 time/session click through captcha

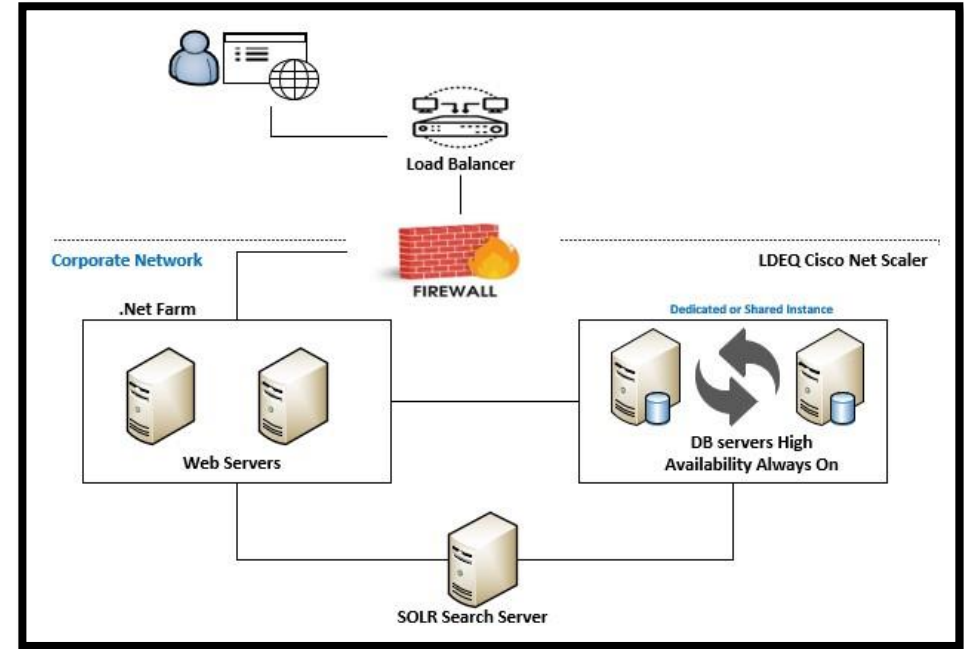


# Application Overview: Key Components

## Architecture Design



## Network Model



# Project Overview: Road to the New System



## Current State

- Outdated look and feel
- Steep learning curve
- Limited search capabilities
- Limited functionality
- Limited customization

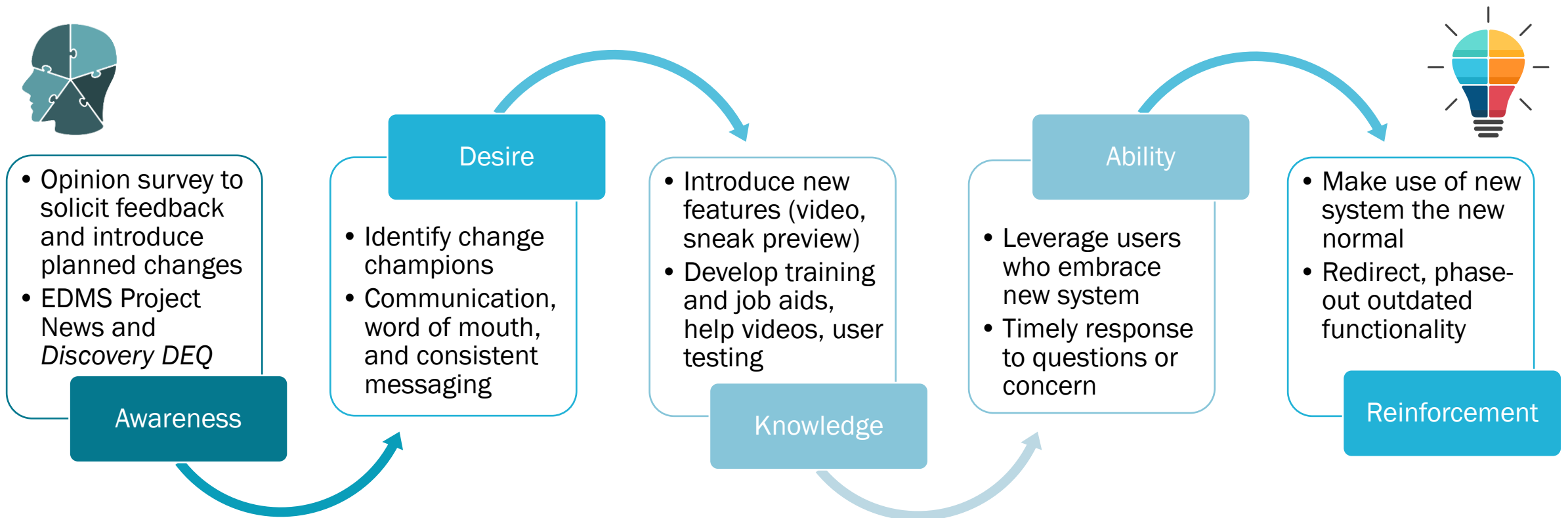
## Change Roadmap



## Future State

- Modernized look and feel
- Easy-to-use, intuitive screens
- Expanded search capabilities
- Enhanced functionality
- New customization options

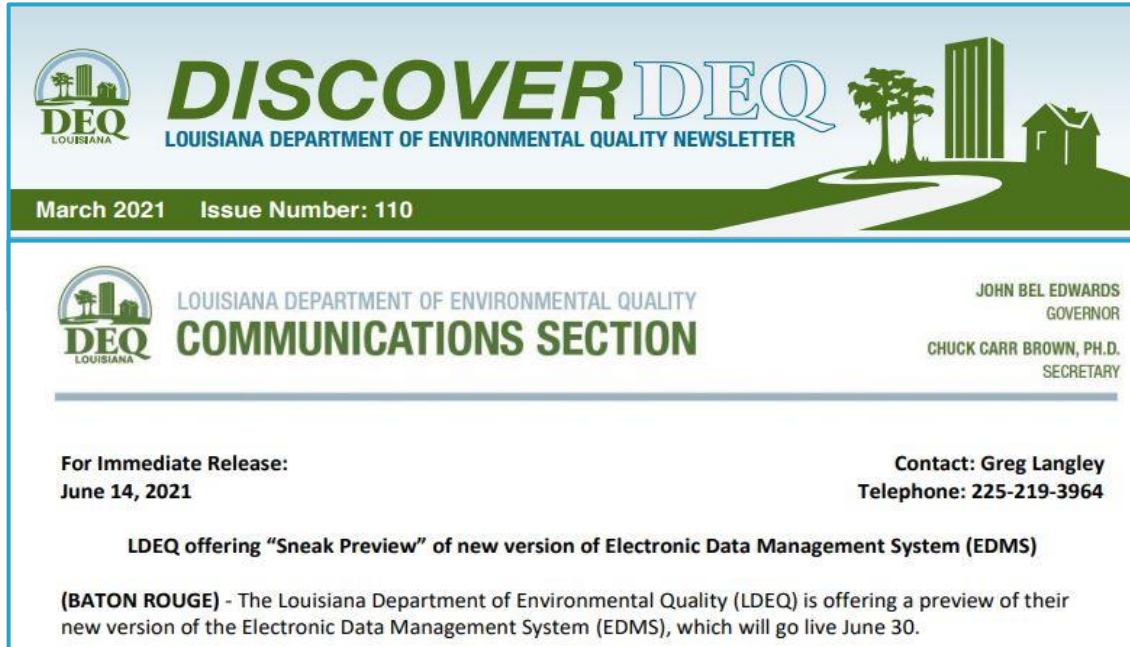
# Change Roadmap



The Prosci ADKAR Model



# Change Management: A Multifaceted Approach



**DISCOVER DEQ**  
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY NEWSLETTER

March 2021 Issue Number: 110

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY  
**COMMUNICATIONS SECTION**

JOHN BEL EDWARDS  
GOVERNOR

CHUCK CARR BROWN, PH.D.  
SECRETARY

**For Immediate Release:**  
June 14, 2021

**Contact: Greg Langley**  
Telephone: 225-219-3964

**LDEQ offering "Sneak Preview" of new version of Electronic Data Management System (EDMS)**

**(BATON ROUGE)** - The Louisiana Department of Environmental Quality (LDEQ) is offering a preview of their new version of the Electronic Data Management System (EDMS), which will go live June 30.



**EDMS**  
*Redesign*

*Modernization in progress!*



## Search Submittal FACT SHEET

**What is the "Search Submittals" operation?**  
The search submittals operation is a **new feature** available in the 2021 EDMS update. It allows you to **track submittals** after submitting documents to EDMS.

**Where can I find the search submittals page?**  
The search submittals link can be found under the **"Operations"** tab in the top bar of EDMS. Look for the gear icon!

**How can the search submittals function help me?**  
The flexible search submittals form can be used in a variety of ways. Two exciting possibilities include:

Operations

- Submit Document
- Submit Bulk
- Search Submittals

Azure DevOps

EDMS Rewrite

SurveyMonkey

Report Bug

BUG 1058

1058 UAT Bug: Reported by Manolo.Irube@la.gov 7/26/2021

Manolo Arriaga Irube 0 comments Add tag

Status	New	Area	EDMS Rewrite
Reason	New	Iteration	EDMS Rewrite

Repro Steps

Bug location: Remove this log Message: System.Exception: Error: NoContent at LDEQ.Lib.Utils.HttpClientUtil.HttpClientPostAsync(String strContent, String url)

Help

EDMS Video Training

Contact Us

About EDMS

# Change Management Success Top 5

## 1. Change Champions

- Core user group of LDEQ employees/records coordinators
- strong opinions and great feedback



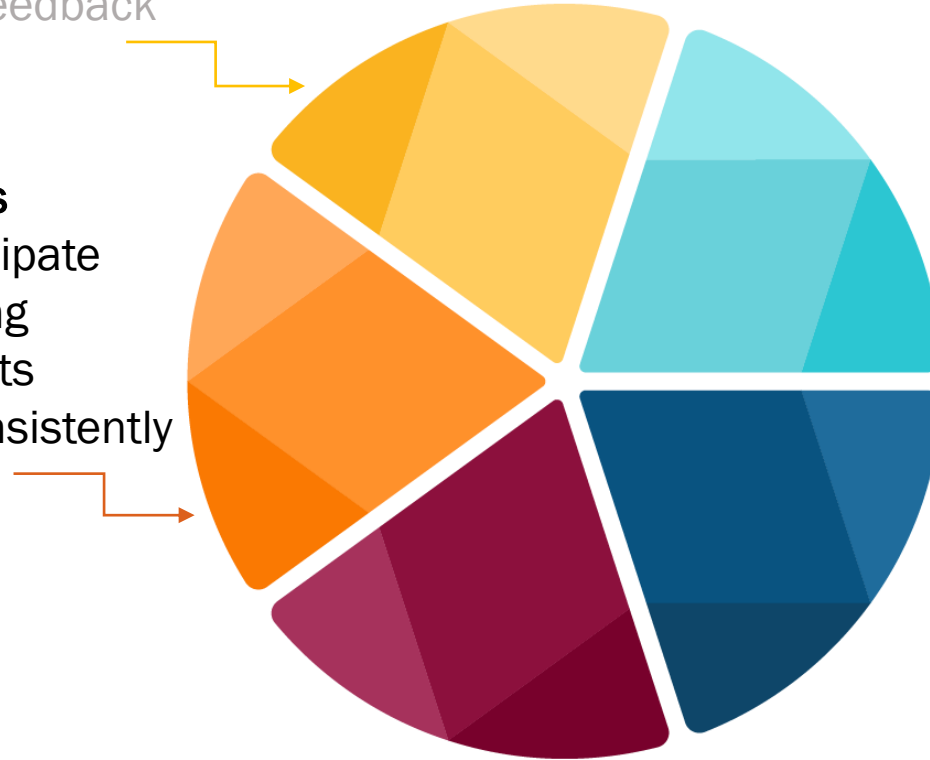
# Change Management Success Top 5

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## 2. Gather Feedback and Concerns

- Make it easy for users to participate
- Centralized system for gathering bugs, reports, issues, comments
- Address issues quickly and consistently



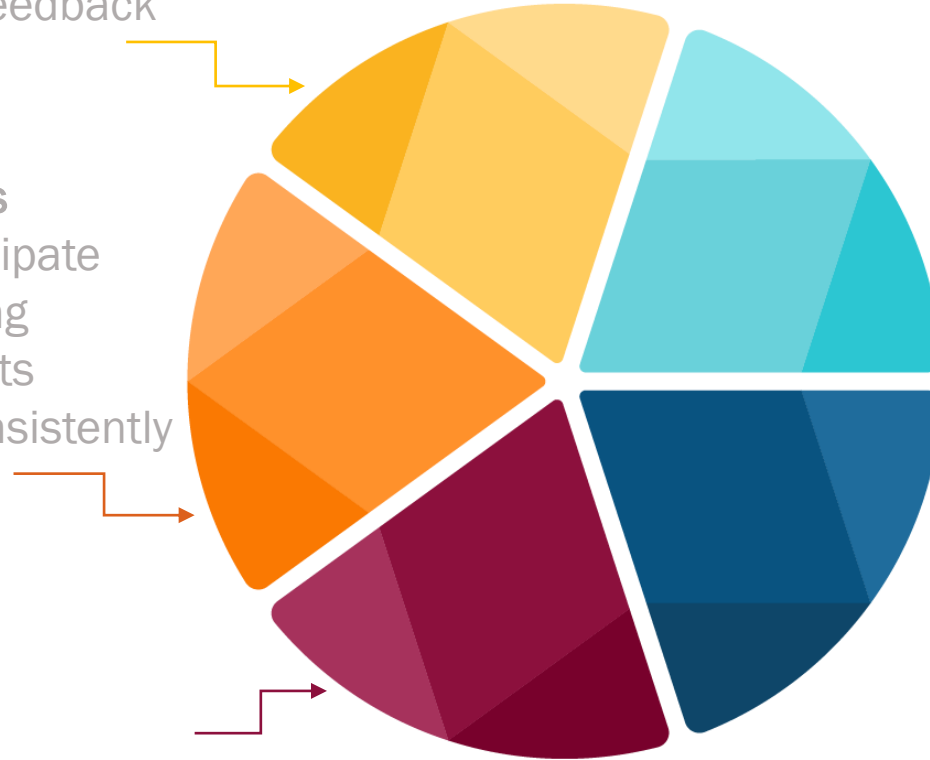
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## 3. Leverage Agency Resources

- Identify and use available skill sets or potential partnerships across the organization
- Graphic designer, public communications, IT, supervisors and executive sponsors



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- Reinforce design, processes, and skills

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## 5. Testing, Training, Testing

- Involve users early and frequently
- Iterative process throughout project



# EDMS: Metrics and Statistics

## Google Analytics

EDMS leverages Google Analytics to track key statistics and demonstrate return on investment (ROI)

- Real time usage data
- Reports and analysis
- Prepare charts and graphs

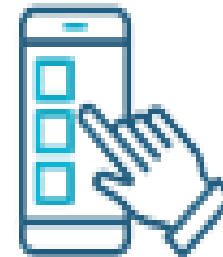


### Usage

- Number of Users
- Number of Sessions
- Number of Page Views

### Geolocation

- Country
- State
- City

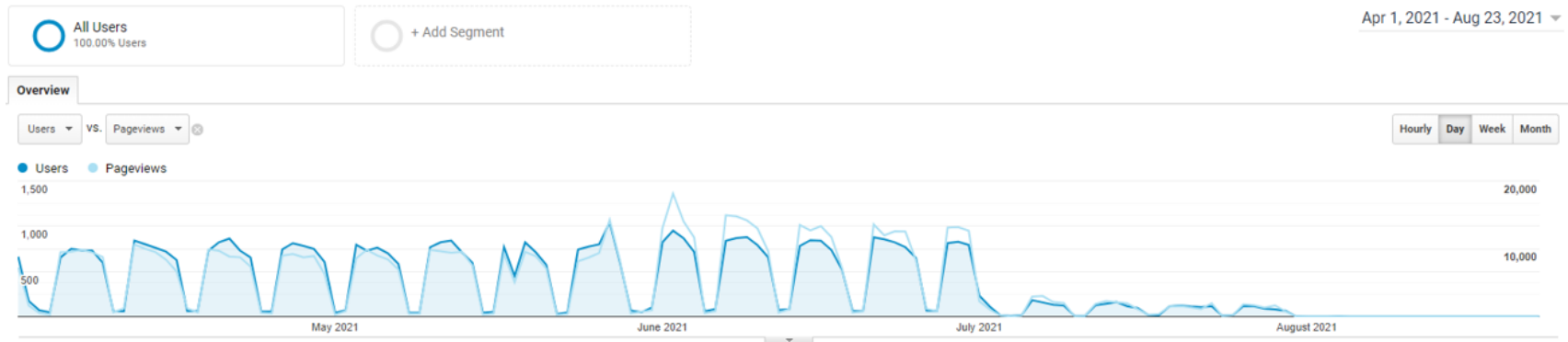


### Feature Use

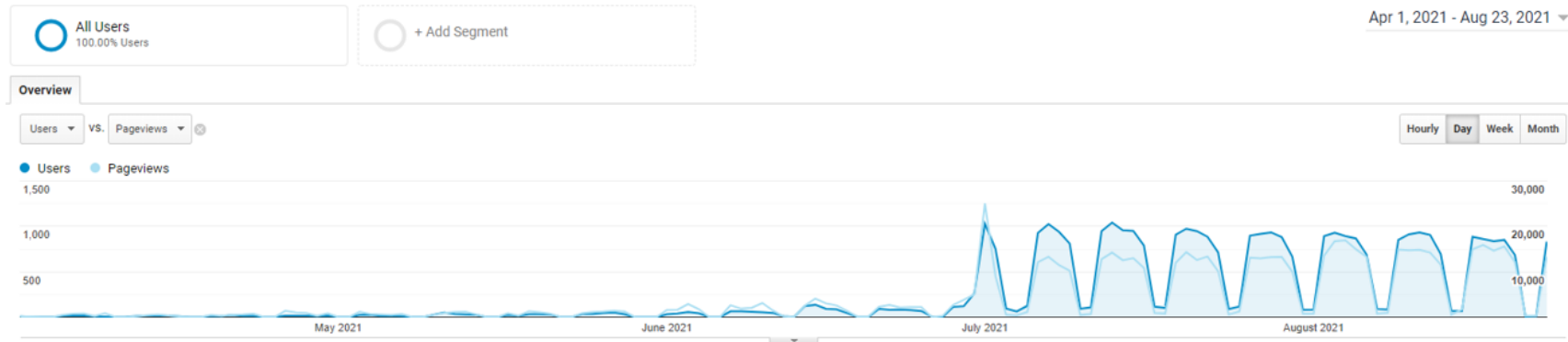
- Landing Pages
- Search Screens

# Rollout Statistic

## Classic



## Modern



# EDMS System Demonstration

## Demonstration Focus:

- Document search and retrieval
- Faceted search filters
- Saved search and notifications
- AI proximity lookup
- Overview of help resources
- Public records form

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

DEQ EDMS Search Records Requests Help

## Quick Search

Enter AI numbers [Search](#) [AI Lookup](#)

Quick Links

[Advanced Search](#) [AI Proximity Lookup](#) [How to Videos](#)



# Lessons Learned: Key Project Challenges



## COVID restrictions

Agency workforce shifted to work from home

- Leveraging Teams/Zoom technology and frequent user engagement allowed for little to no interruption to project workflow



## Slow initial development

Learning-curve for Teleric and Angular framework

- Adding additional development resources quickly brought project back on track



## Web-Crawler/Bot Attack

A web-crawler attack on EDMS slowed system response time significantly

- Implementation of ReCaptcha on crucial system components prevents malicious document calls



## Unanticipated user stories

Despite extensive user testing, a critical LDEQ staff function related to submittals was missed

- Identified issue and implemented a fix within 24 hours of being notified of missing components

# Lessons Learned: Key Project Successes



## On-Site support team

- Having a separate Access Sciences team on site already familiar with the system provided for critical input on use cases and facilitated stakeholder engagement and access



## Leveraging LDEQ Resources

- Allowing super users early access to the system helped quickly identify potential issues
- The project team collaborated with several core LDEQ business units, raising awareness of the RM Program and EDMS Project



## Project rollout schedule

- A tiered project roll-out schedule allowed users to gradually move to the new system without experiencing major interruptions and assisted in the change management process



## Communication and change management

- Users were well prepared for the final cut-over to the new system
- Despite posing a significant change to users, the team encountered no push back to making the switch

# Questions?

**Glenn Frederickson**

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