



**Missouri State**<sup>™</sup>  
U N I V E R S I T Y

# **Form Processing – The Database Side**

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# Development Environment

- **Web Services Office: Central pages and applications only**
- **Academic and administrative departments have their own web developers**



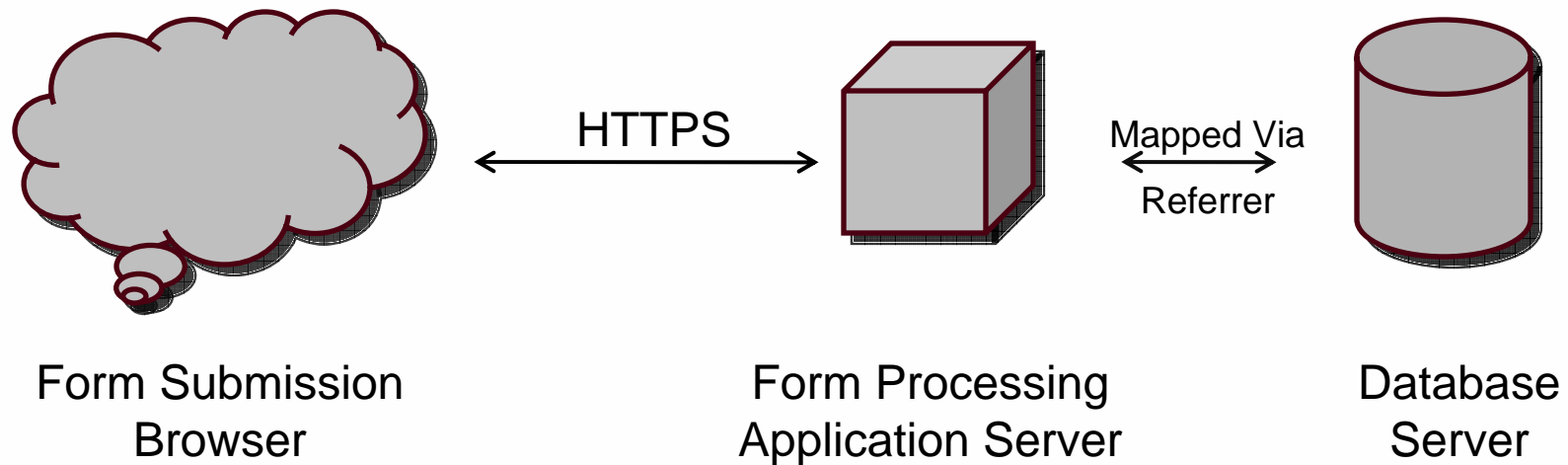
# Project Goals

- **Provide basic web developers a method to store form results in a database**
- **Reduce help desk calls**
- **Improve security**

# System Requirements

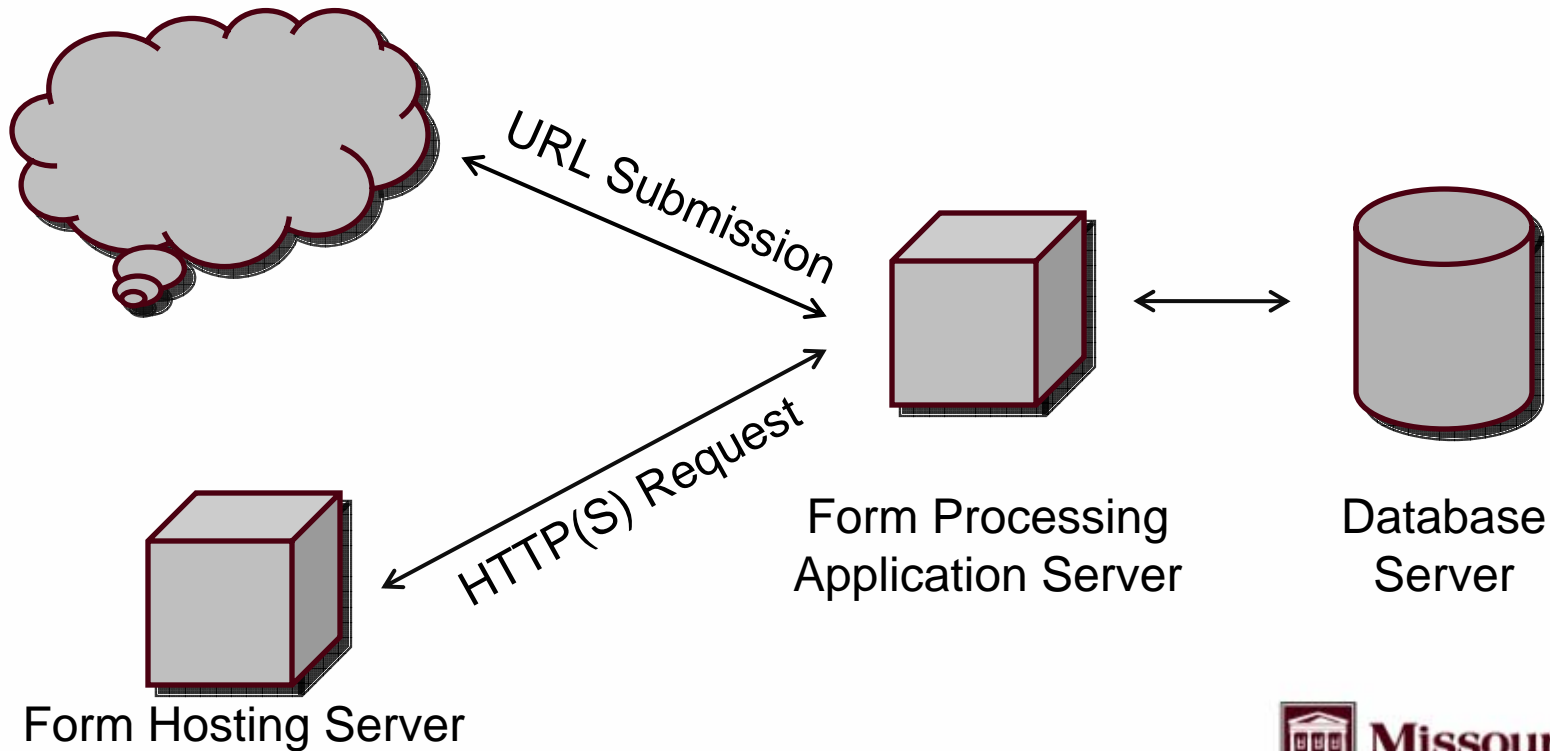
- **No server-side software**
- **Should not require any programming by the developer**
- **Follow good security practices**

# How it Works – Storing Results



# How it Works – Creating the Table

Developer Submission



# How It Works: Initial Setup

- **Developer requests database services for their site(s)**
- **Web Services creates database mappings for the requested URLs**

# How It Works: Form Creation

- **Step 1: Developer creates a form**
- **Step 2: Developer visits Database Management System and updates table structure**
- **Step 3: Developer later visits Database Management System to retrieve data**



# How It Works: Overview

- **System parses the form and automatically determines the table structure for the user**
- **The more information a user provides, the more precise the resulting table structure**

# Examples

- **Simple Form: Single textbox**
- **Session Evaluation Form**

# Scope

- **Basic database forms only: form contents stored in a database**
- **No post-submission processing or multi-step forms**
- **Must allow for submission of secure data (such as SSNs)**



# Table Creation Assumptions

Field Type	Resulting Data Type
Textbox	varchar(255) or varchar(maxlength)
Textarea	varchar(1000)
Drop Down List	varchar(source length)
Radio Button	varchar(source length)
Checkbox	varchar(summed source length)
Hidden	varchar(source length)
Button	varchar(source length)



# System Features

- **Updating table structure guaranteed to be non-destructive**
  - Field lengths can increase, but never decrease
  - Columns may be added but will never be removed

# Security Assumptions

- **Everyone has insert access to the table**
- **Access to the data or to create or update tables is restricted to developers who have rights to modify the web form**
- **Database and table determined by HTTP Referer**



# Additional Developer Options

- **Confirmation Page**
  - Basic form post-processing based on record ID
- **Developer Notification**
- **Ignored Fields**
- **Table Name**



# Advanced Support

- **Multiple authentication sources**
- **Allows use from within our CMS**



# Questions

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