

Design Procedures for Security

The site we have designed for the University of Louisville's Basketball team is completely internal, meaning only people associated with the basketball team will have access to the site. When creating this internal site, Security should be one of the most important factors if not the most important. The CMS we proposed, TYPO3, offers a variety of security features that are necessary for this site.

1. **Access Control:** Typo3 provides granular control over user permissions and access rights, allowing administrators to restrict access to certain areas of the site or to specific functions.

Access Control was one of our key points when designing this internal site. We will implement access control by creating three types of user accounts:

I. **Player:** A Player account will only have permission to "View" pages such as player stats, team stats, schedule, etc. They will also have the ability to make an Inquiry form and request changes to their medical information.

II. **Staff:** Staff accounts have varying permissions based on the department they are associated with. Nutritionists, for example, are able to view, edit, and add information solely on the Nutrition page, while coaches have the ability to view, edit, and add information on all Statistics pages, including Charts & Pivot Tables, Lifting, Player Statistics, and Team Statistics but not in Nutrition and Medical pages.

III. **Admin:** An Admin account will have all privileges within the site. These accounts will only be available to very few users. For example, the head coach, and IT Personals.

2. **Two-Factor Authentication:** Typo3 supports two-factor authentication, which adds an extra layer of security to user logins by requiring a code in addition to a password.

The University of Louisville already uses a Two-Factor Authentication app called DUO. Upon first login, users are required to set up their accounts and connect their phones to the account. After the first log-on, the app sends a push notification to the user's phone, which they must respond to by reacting to the notification.

3. **Security Extensions:** Typo3 has a variety of security extensions that can be used to further enhance the security of the site, including security scanners, firewall modules, and intrusion detection systems.

Security scanners help identify vulnerabilities that could be exploited by attackers, while firewall modules protect against attacks by filtering and blocking traffic from known malicious sources. Intrusion detection systems detect attacks in progress, giving administrators the opportunity to respond quickly and mitigate any potential damage.

