

LeadingAge New York Services

EQUIP Technical Architecture

Overview and Description

Kevin Webb
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EQUIP Technical Architecture

Overview

Equip consists of various applications serving different purposes across the business. They are:

<http://www.equipforquality.com>

This is our public facing marketing and information site deployed as a simple CMS driven website.

<https://apps.equipforquality.com>

This web application serves as an application access portal for the EQUIP 3 application. It is responsible for integrating single sign on access to any application we develop which EQUIP 3 is one of. It is also responsible for new user provisioning, user profile updating, and administering access to the EQUIP 3 application.

<https://apps.equipforquality.com/equip3>

This is the EQUIP 3 MDS 3.0 analytics tool deployed as rich internet application.

CMS VUT for MDS 3.0

This is a stand alone application provided by CMS that equip uses to validate uploaded MDS records.

MDS 3.0 Validation Watcher

This is a stand alone application developed by equip that works in concert with the CMS VUT in order to process incoming MDS records once they are deemed valid by the CMS VUT.

EQUIP 3 API

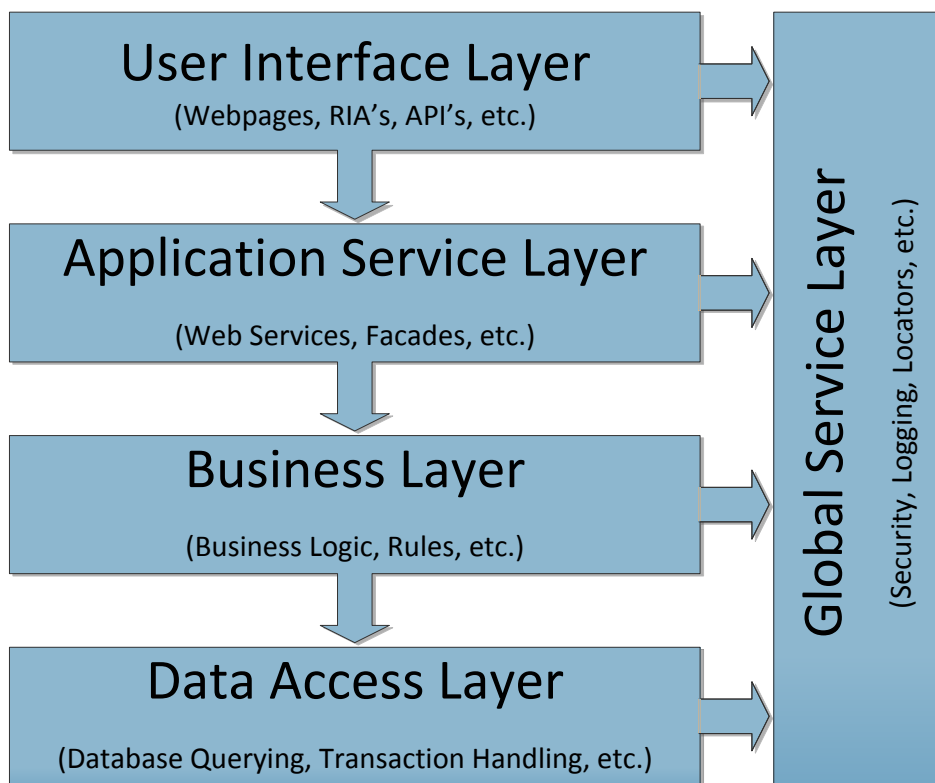
This web application exposes web services to 3rd party MDS vendors that want to integrate their MDS collection software with EQUIP.

The following pages of this document provide multiple perspectives of the technical architecture to better describe the components of the system.

EQUIP Technical Architecture

Conceptual View

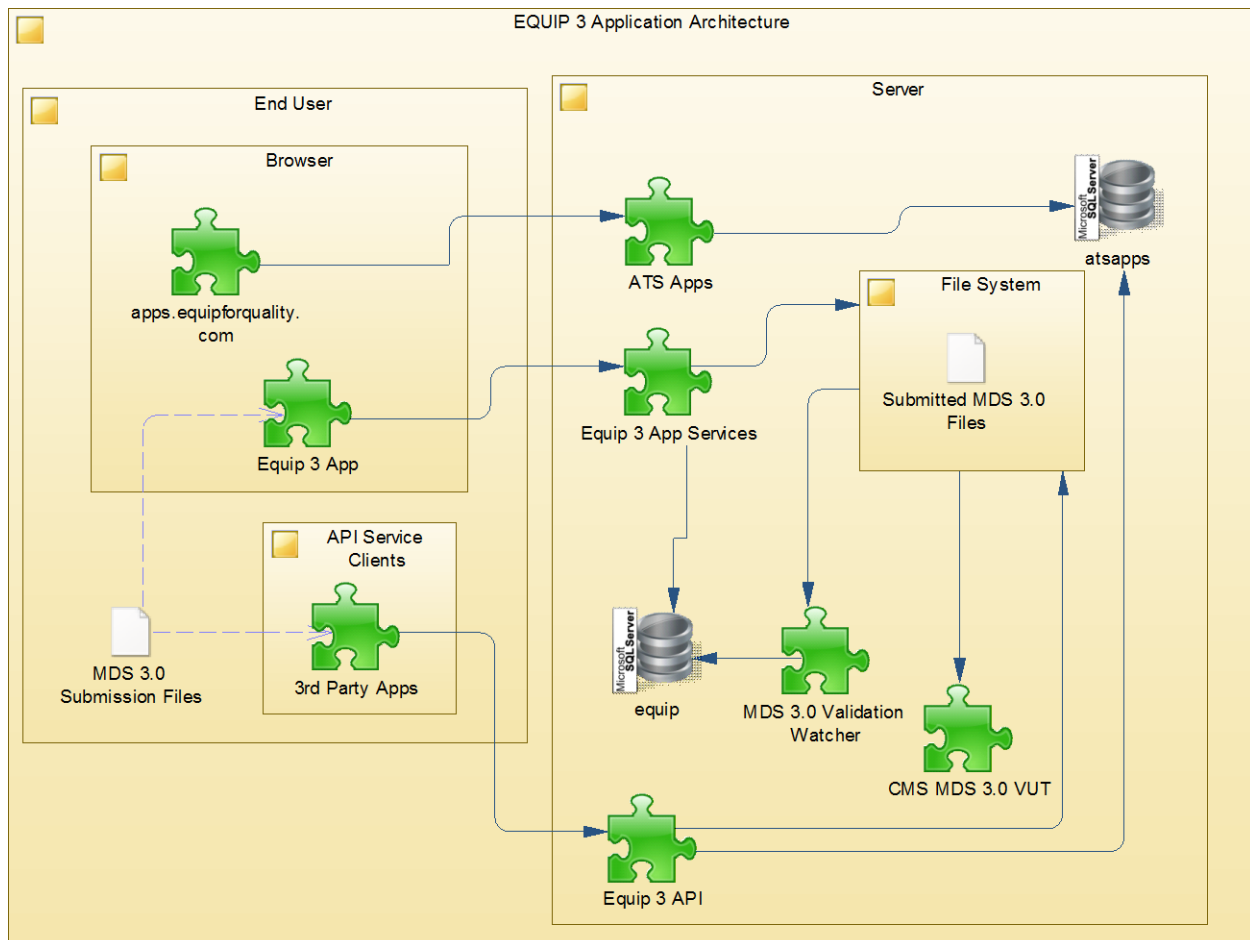
EQUIP employs a layered architecture to separate its development concerns. The diagram below shows the conceptual view of the architecture. This architecture will be employed for any EQUIP developed application. These layers will be referenced later in the Component Inventory.



EQUIP Technical Architecture

Logical View

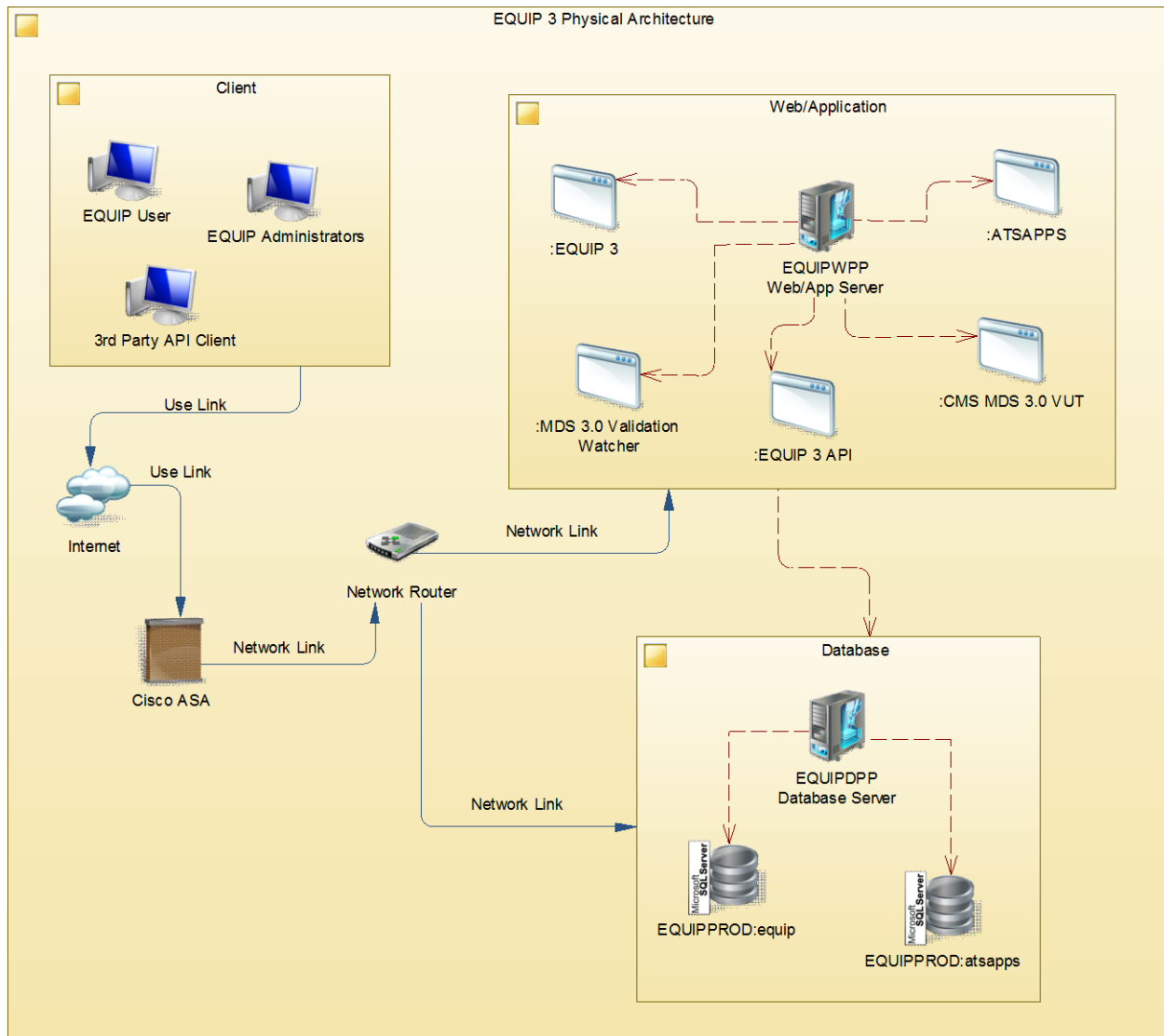
The diagram below shows the logical flow and relationships between components of the the Equip 3 application architecture.



EQUIP Technical Architecture

Physical View

The diagram below shows the physical technology infrastructure that the Equip 3 application operates within.



EQUIP Technical Architecture

Component Inventory

The inventory below represents all of the components and applications that make up the deployable bits that run the Equip 3 system. For each component/application there is data corresponding to its layer placement, whether or not it is a 3rd party component or something that we developed, its upgrade and service requirements, and which of the main application outputs it is related to.

| Component Name: AtsApps.Web | |
|------------------------------|--|
| Type | Web Site |
| Layer | Global |
| Description/Purpose | An implementation of the open source project MyWSAT used for asp.net membership provisioning |
| 3rd Party? | yes |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Open source static will not upgrade |
| Applications Used By | apps.equipforquality.com |

| Component Name: Telerik Rad Controls | |
|--------------------------------------|---|
| Type | ATS MDS 3 Library |
| Layer | UI |
| Description/Purpose | Silverlight and asp.net UI control libraries used to increase productivity for user interface development |
| 3rd Party? | yes |
| Source Control? | no |
| Extendable? | yes |
| Upgrade/Service Requirements | 4 releases yearly, we choose when, subscription based support with yearly renewal |
| Applications Used By | Equip 3 |

| Component Name: Ats.Windows.Themes.Mds3Analytics | |
|--|---------------------------------|
| Type | ATS Library |
| Layer | UI |
| Description/Purpose | Equip developed base UI classes |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | Equip 3 |

| Component Name: Ats.Windows.Controls3 | |
|---------------------------------------|---------------------------------|
| Type | ATS Library |
| Layer | UI |
| Description/Purpose | Equip developed base UI classes |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | Equip 3 |

| Component Name: Ats.Mds3.Silverlight3 | |
|---------------------------------------|--|
| Type | ATS MDS 3 Library |
| Layer | UI |
| Description/Purpose | Equip developed application UI classes |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | Equip 3 |

| Component Name: Ats.Mds3.Silverlight3.Model | |
|---|--|
| Type | ATS MDS 3 Library |
| Layer | UI |
| Description/Purpose | Equip developed application data transfer classes used in UI |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | Equip 3 |

| Component Name: Ats.Mds3.Silverlight3.Web | |
|---|---|
| Type | ATS MDS 3 Library |
| Layer | App Service |
| Description/Purpose | Equip developed web service interfaces for the equip3 application |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | Equip 3 |

| Component Name: Ats.Mds3.Model | |
|---------------------------------------|--|
| Type | ATS MDS 3 Library |
| Layer | Global |
| Description/Purpose | Equip developed data transfer classes used to pass data throughout the layers of the application |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher, Equip 3 API |

| Component Name: Ats.Mds3.Logging | |
|---|---|
| Type | ATS MDS 3 Library |
| Layer | Global |
| Description/Purpose | Equip developed configurable logging classess based on Nlog framework |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher, Equip 3 API |

| Component Name: Ats.Mds3.Business | |
|--|--|
| Type | ATS MDS 3 Library |
| Layer | Business |
| Description/Purpose | Equip developed classes responsible for business logic divided into the logical notions of business facades and business objects |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher, Equip 3 API |

| Component Name: Ats.Mds3.DataAccess | |
|--|--|
| Type | ATS MDS 3 Library |
| Layer | Data Access |
| Description/Purpose | Equip developed classes responsible for abstracting database communication from the rest of the layers |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher, Equip 3 API |

| Component Name: Ats.Mds3.DataModel | |
|---|--|
| Type | ATS MDS 3 Library |
| Layer | Data Access |
| Description/Purpose | Equip developed classes responsible for exposing the functionality of microsoft's entity framework built into .net version 4 |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher, Equip 3 API |

| Component Name: Ats.Mds3.RugUtil | |
|---|---|
| Type | ATS MDS 3 Library |
| Layer | Global |
| Description/Purpose | Equip developed classes responsible for wrapping calls to The CMS distributed RUG utility DLL's |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher |

| Component Name: Ats.Mds3.Upload | |
|--|---|
| Type | ATS MDS 3 Library |
| Layer | Global |
| Description/Purpose | Equip developed classes used to encapsulate MDS 3.0 records for upload processing that is shared between applications |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher |

| Component Name: Ats.Mds3.ValidationWatcher | |
|---|--|
| Type | ATS MDS 3 Library |
| Layer | UI |
| Description/Purpose | Equip developed application used to process incoming MDS records once they are deemed valid by the CMS VUT |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | MDS 3.0 Validation Watcher |

| Component Name: Ats.DataModel.AtsApps | |
|---------------------------------------|--|
| Type | ATS Library |
| Layer | Data Access |
| Description/Purpose | Equip developed classes responsible for exposing the functionality of microsoft's entity framework built into .net version 4 |
| 3rd Party? | no |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Our code |
| Applications Used By | apps.equipforquality.com |

| Component Name: Nlog | |
|------------------------------|--|
| Type | 3rd Party Library |
| Layer | Global |
| Description/Purpose | A 3rd party logging framework |
| 3rd Party? | yes |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Open source we choose when to upgrade |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher, Equip 3 API |

| Component Name: Microsoft.Practices.Unity | |
|---|---|
| Type | 3rd Party Library |
| Layer | Global |
| Description/Purpose | A 3rd party IOC (inversion of control) and dependency injection framework |
| 3rd Party? | yes |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Open source we choose when to upgrade |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher, Equip 3 API |

| Component Name: Ionic.Zip | |
|------------------------------|---|
| Type | 3rd Party Library |
| Layer | Global |
| Description/Purpose | A 3rd party library providing application programming level zip file services |
| 3rd Party? | yes |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Open source we choose when to upgrade |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher, Equip 3 API |

| Component Name: PostSharp | |
|------------------------------|--|
| Type | 3rd Party Library |
| Layer | Global |
| Description/Purpose | A 3rd party performance instrumentation library |
| 3rd Party? | yes |
| Source Control? | yes |
| Extendable? | yes |
| Upgrade/Service Requirements | Open source we choose when to upgrade |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher, Equip 3 API |

| Component Name: Rug520.dll | |
|------------------------------|-------------------------------------|
| Type | 3rd Party Library |
| Layer | Global |
| Description/Purpose | A CMS distributed library |
| 3rd Party? | yes |
| Source Control? | no |
| Extendable? | no |
| Upgrade/Service Requirements | Free but on CMS's schedule |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher |

| Component Name: RUGIV.dll | |
|------------------------------|-------------------------------------|
| Type | 3rd Party Library |
| Layer | Global |
| Description/Purpose | A CMS distributed library |
| 3rd Party? | yes |
| Source Control? | no |
| Extendable? | no |
| Upgrade/Service Requirements | Free but on CMS's schedule |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher |

| Component Name: RugVersionConverter.dll | |
|---|-------------------------------------|
| Type | 3rd Party Library |
| Layer | Global |
| Description/Purpose | A CMS distributed library |
| 3rd Party? | yes |
| Source Control? | no |
| Extendable? | no |
| Upgrade/Service Requirements | Free but on CMS's schedule |
| Applications Used By | Equip 3, MDS 3.0 Validation Watcher |

| | |
|--------------------------------|-------------------------------|
| Component Name: CMS VUT | |
| Type | 3rd Party Application |
| Layer | Global |
| Description/Purpose | A CMS distributed application |
| 3rd Party? | yes |
| Source Control? | no |
| Extendable? | no |
| Upgrade/Service Requirements | Free but on CMS's schedule |
| Applications Used By | |