

# **Atea Wallboard (UAW)**

## **Technical Reference**

**April 2016**

Doc version 1.6a

### **Author**

Jamie Brown

Atea Systems Limited

**Atea Systems Limited**  
PO Box 22042, 2 Ganges Road  
Khandallah, Wellington, New Zealand  
NZBN 9429036367115

**Atea Systems Pty Limited**  
PO Locked Bag Q800, QVB Post Office  
Sydney, NSW 1230, Australia  
ABN 57 122 952 783

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## Document History

Date	Author	Version	Summary
27 Apr 2016	Murray Lum	1.6a	Reformatting and editing to improve clarity
23 Feb 2016	Jamie Brown	1.6	Updated s 4.3.2 – virtual machine specifications
29 Sep 2015	Jamie Brown	1.5	Updated S 4.3.9 – port numbers
30 Jul 2015	Jamie Brown	1.4	Updated TSP build and VM export details
29 May 2015	Murray Lum	1.4	Reformatted and style edits.
10/03/2015	Jamie Brown	1.3	Additional information on backups and changed TSP build from Centos to Oracle Linux
15/07/2014	Jamie Brown	1.2	Additional information on virtual machine support
29/01/2014	Jamie Brown	1.1	Results of internal review
14/01/2014	Jamie Brown	1	Initial document

## Related Documents

Document	Description
UAW Administration Guide	Administration guide for Atea Wallboard application including configuration of wallboards
UAW Installation Guide	Instructions on how to install the application
AteaSystems.com How to articles	Tips and instructions for using and configuring the Wallboard

## 1 Scope – UAW planning information

This document provides information for customers planning to install the Atea Wallboard application (UAW) into their Cisco UC environment. Both the customer and Atea need the information outlined in this document to enable a successful implementation.

## 2 Audience – Designers, engineers and project managers

This document is aimed at the Atea developers and the customer designers, implementation engineers and project managers.

## 3 Terms

Term	Description
<b>CUCM</b>	Cisco Unified Communications Manager
<b>TSP</b>	The software platform delivered by Atea
<b>UAW</b>	The Atea real time reporting application (Wallboard) for the Cisco UCCX platform, or CUCM implementing Native Queuing
<b>UCCX</b>	Cisco Unified Contact Centre Express software

## 4 Delivery Description

This section covers an overall description of the application and architecture, and details on the individual components of the application.

### 4.1 Product Overview

The Atea UAW Wallboard enables the presentation of a variety of statistics in real time, via a wall mounted screen, or any other device capable of displaying a standard web page. Initially designed for the presentation of Cisco UCCX queue statistics, agent state and grade of service information, the Atea UAW Wallboard has been expanded to access statistical data from other sources too. This includes databases, CSV and Excel spreadsheet files (full version only, not the basic XA version or demo versions).

There are a variety of screen layouts to display the statistics.

## 4.2 Product Architecture

The Atea wallboard application resides on a server known as the Atea TSP. Atea provide the TSP as a virtual machine. It comprises of a Linux O/S (Oracle Linux) server complete with:

- An Oracle database and application environment
- A Tomcat web server
- An Open LDAP directory
- Other supporting applications such as the Java run time environment, SFTP and SSH.

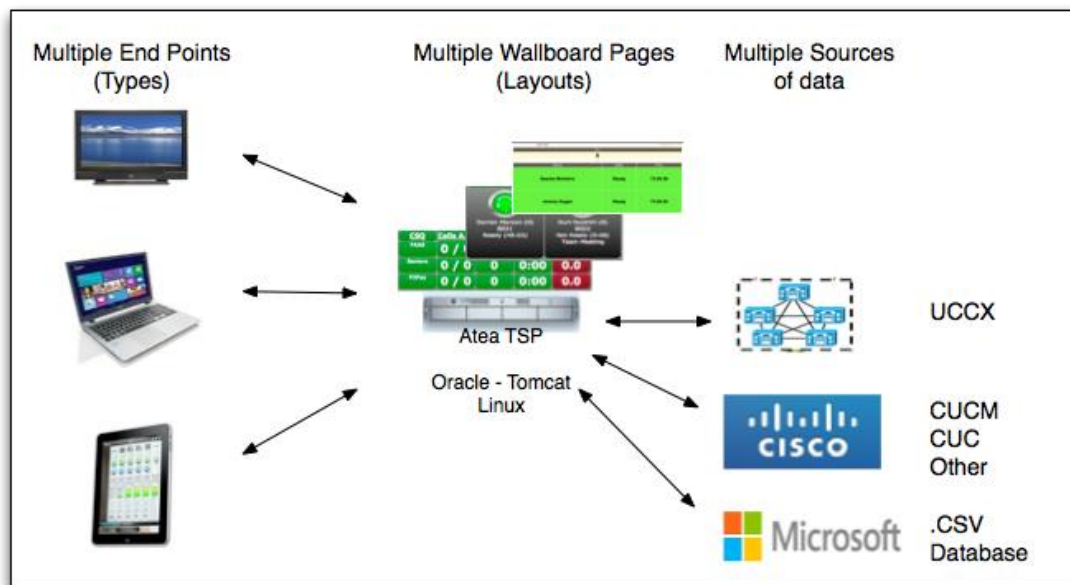
The Atea applications are written in the Java environment.

The wallboard application resides within the Tomcat web server. On one side the application queries data sources (such as UCCX) for statistics. These statistics are then compiled into a series of pages in memory on the server (the wallboards). Client devices with a web browser then connect to the appropriate page URL to display the wallboard. The browser is the only software required on the client desktop.

Some wallboards can be authenticated to a user or source IP address. Additionally a user can be authenticated to more than one wallboard. In this case, the application will automatically cycle the user's screen through the different wallboards.

High availability is supported both from a UCCX and UAW perspective.

The general architecture is shown in this diagram below.



## 4.3 Product Components

The Atea applications reside in a Tomcat web server container which itself runs on Linux. These and other supporting applications are collectively referred to as the 'build' and are listed below (versions subject to change). Note that Atea supplies and maintains the entire build.

Oracle Linux 6.7

Oracle-XE Database 11

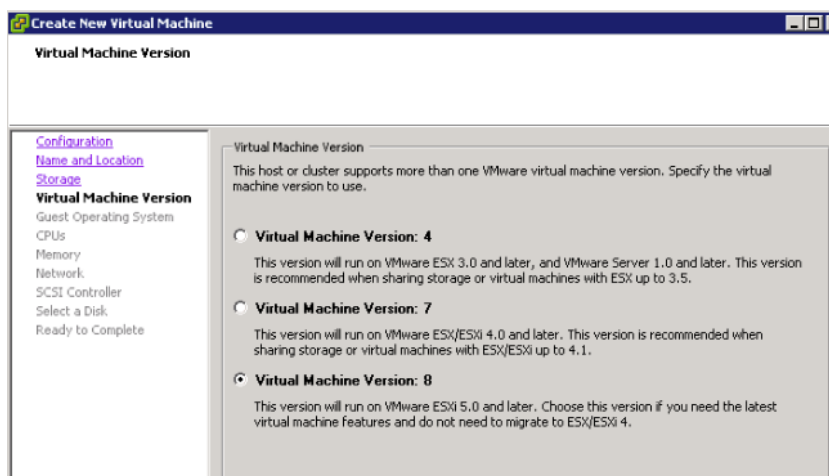
Oracle-APEX 4.2

Tomcat 7

Java JRE 7

#### 4.3.1 Virtual Machine Type

The Atea build is delivered as a single virtual machine in the OVF format. We use VMWare ESXi 5.1 and OVF 3.0.1 by default. Other virtual machine types that can be created are shown below.



#### 4.3.2 Virtual Machine Specifications

The virtual machine specifications to run the Atea TSP build are:

Item	Virtual
O/S Supprt	64 bit O/S
Processor	2 virtual CPUs
RAM	8 GB
Disk	150 GB Resilient data store recommended


#### 4.3.3 Network Details for Virtual Machine

We'll need the network details for the virtual machines to communicate.

Please fill out this form online at:

<https://www.ateasystems.com/virtual-server-config/>

ateasystems.com/virtual-server-config



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Customer Company Name *	Customer Email *
<input type="text"/>	<input type="text" value="(to receive download links)"/>
IP Address*	Hostname *
<input type="text"/>	<input type="text"/>
Subnet Mask *	DefaultGateway *
<input type="text"/>	<input type="text"/>
DNS Server IP *	DNS Domain *
<input type="text"/>	<input type="text"/>
NTP Server IP *	Linux Time Zone *
<input type="text"/>	<input type="text"/>
SMTP Server IP *	VMWare Version *
<input type="text"/>	<input type="text" value="(i.e. ESXi 5.5)"/>
CUCM Server IP *	CUCM Hostname *
<input type="text"/>	<input type="text"/>
Export Format *	CUCM Version *
<input type="text" value="-- Please Select --"/>	<input type="text" value="-- Please Select --"/>

Submit

## 4.3.4 UCCX Details for licensing

The Atea UAW server connects to the servers in the UCCX cluster. We also require information about the server the UAW resides on for the license. Please fill out this form online at:

<https://www.ateasystems.com/uaw-license-information/>

Customer Company Name *	Customer Email *
<input type="text"/>	<input type="text"/>
UAW Server Mac Address *	UCCX Server IP Address *
<input type="text"/>	<input type="text"/>
UCCX Server Hostname *	
<input type="text" value="(without domain suffix)"/>	

Submit

#### 4.3.5 Other Details – UCCX WallBoard User and HR User accounts

The application queries data in the Cisco real time and historical tables. To allow this, you'll need to enter the passwords for these accounts into the UAW system properties. The UAW Installation guide has details on how to do this. The two UCCX accounts are:

- Wallboard User
- HR User

#### 4.3.6 Database Replication (full version only)

You can implement high availability for the Atea servers, provided you have the full version of the wallboard (not the basic XA version or demo version). This will replicate the wallboard configurations between the servers. The Oracle port number must be open between the servers. Please see the section on port numbers for the details.

#### 4.3.7 User Authentication (full version only)

There are two types of user authentication you may configure in addition to the default settings shipped with the wallboard.

**Administration users.** The application is shipped with a default admin user called ursadmin. This user can administer the wallboards and any system settings.

You can configure more admin users using the included Linux utility.

**Wallboard users.** The full wallboard (not basic XA version or demo version) supports authenticating users to a particular wallboard. The options for this are;

- Source IP address (or computer host name)
- Windows username
- Microsoft single sign-on

Some wallboard templates do not support every option. Please get in contact if you need this.

#### 4.3.8 Backups of server and databases

We recommend that you perform these two main types of backups:

1. A general server backup of the operating system and the applications running on it.
2. A backup of the Oracle database containing the wallboard configurations and the settings specific to the application.

We suggest you use your normal tools for the general server backups, such as those supplied by VMWare or other manufacturers.



Atea will schedule backups of the Oracle database and the application specific settings and data. These files are copied to a customer supplied network location using either SFTP or SCP. The customer is then responsible for managing this backed up data.

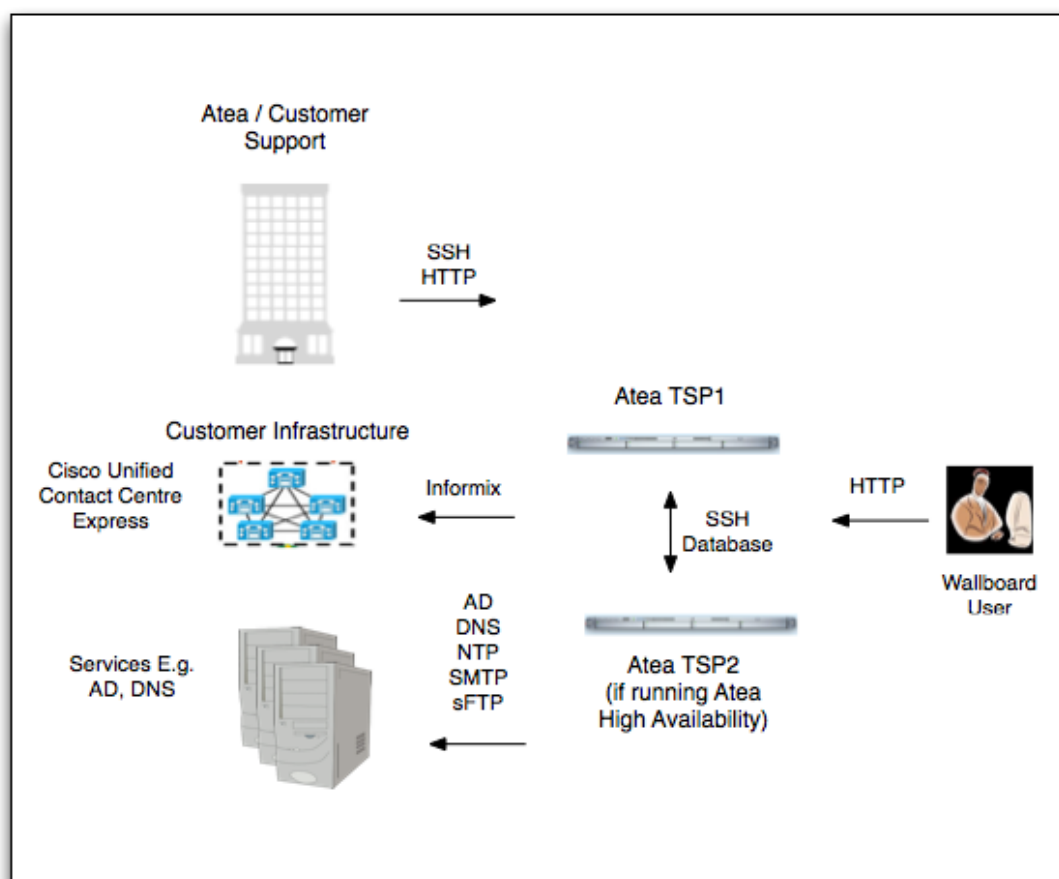
Please advise the backup method you will use and provide the necessary username/password and network location details.

This table contains the details of the TSP backup location and the backup server.

Attribute	Value
<b>TSP backup location</b>	/etc/atea/backups/
<b>Hostname</b>	
<b>IP Address</b>	
<b>Protocol</b>	
<b>Server O/S</b>	
<b>SFTP Root Directory</b>	
<b>SFTP User/Password</b>	
<b>Scheduled Dates</b>	
<b>Scheduled Time</b>	

#### 4.3.9 Port Numbers

The diagram and table below detail the port numbers used by the applications and the direction that the communication is established in.



From	To	Port	Description
Customer browsers	Wallboard Server	TCP 8088	Displaying wallboards
Customer browsers	Wallboard Server	TCP 8080	If administering wallboards
Atea / Customer / Partner Support	Wallboard Server	TCP 22	SSH access for support and maintenance
Atea / Customer / Partner Support	Wallboard Server	TCP 8080/8088	HTTP access for support and maintenance
Wallboard Server	UCCX	TCP 1504	UXXC Informix queries
Wallboard Server	UCCX	TCP 80	UXXC Master / Slave queries
Wallboard Server	Backup server	TCP 22	sFTP sending of backup files
Wallboard Server	DNS	UDP 53	DNS Lookups
Wallboard Server	NTP	UDP 123	Time Synchronisation
Wallboard Server	SMTP	TCP 25	Email Alerts

#### 4.3.10 Service and port monitoring

We suggest that you monitor the following services and ports.

Service Name	Service Port
Oracle	1521
Tomcat Web Server	8088
Oracle Web Server	8080

#### 4.3.11 Supported UCCX versions

The Atea wallboard works with any version of UCCX from 8.5 onwards. These versions of UCCX use the IBM Informix database.

#### 4.3.12 Supported browsers

The Atea wallboard is displayed in a web browser. The minimum versions of the common browsers are listed below.

Mozilla Firefox 3.0+

Google Chrome 1+

Apple Safari 3+

Opera 9.5+

Microsoft Internet Explorer 8