Enterprise Business Intelligence (BI)

with Tableau Server

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Course Outline

Basics	Intermediate	Advanced
Installation & Configuration	Data Server	High Availability
Authoring & Deploying	Taxonomies	Customizing

Overview

- **Tableau Server Features and Specs**
- **Architecture Overview**
- **Server Processes**
- **Installing & Configuring (demo)**
- **Authoring & Deploying (demo)**

Tableau Server Features

Business Features

Interactive dashboards any browser

Data Server provides "single-source of truth"

Data Engine = blazing fast queries

Works great on mobile

Web Authoring ad-hoc analysis

Self-service publishing

No IT bottleneck

IT Features

Active Directory Integration

Multi-tenancy using "sites"

Email alerts on system restarts

Admin monitoring views

Security override option

Easy backup/restore

Deploys in minutes (literally)
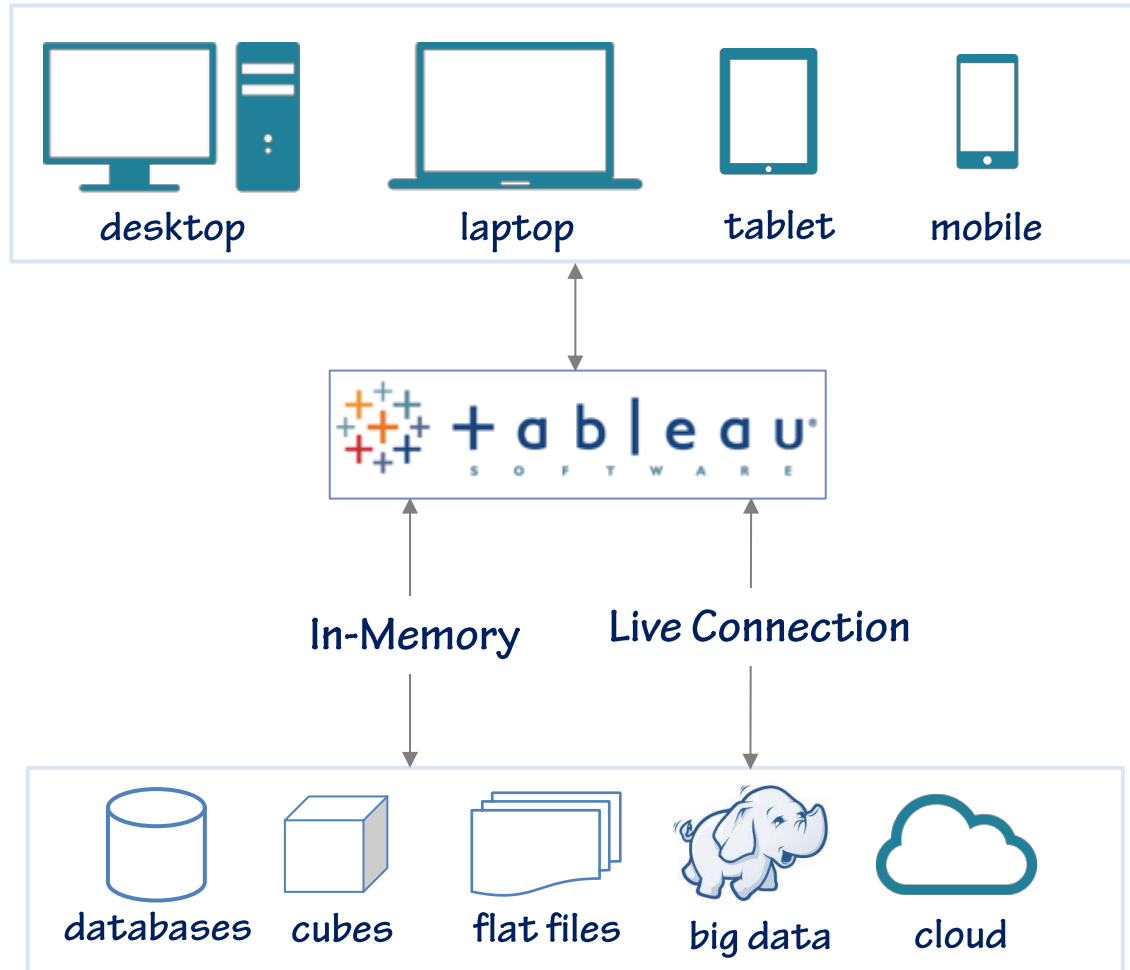
Tableau Server Tech Specs

System Requirements

- Windows Server 2012, 2008, 2008 R2, 2003 SP1 or higher; Windows® 8 or 7 on x86 or x64 chipsets
- 32-bit or 64-bit versions of Windows
- Minimum of a Pentium 4 or AMD Opteron processor
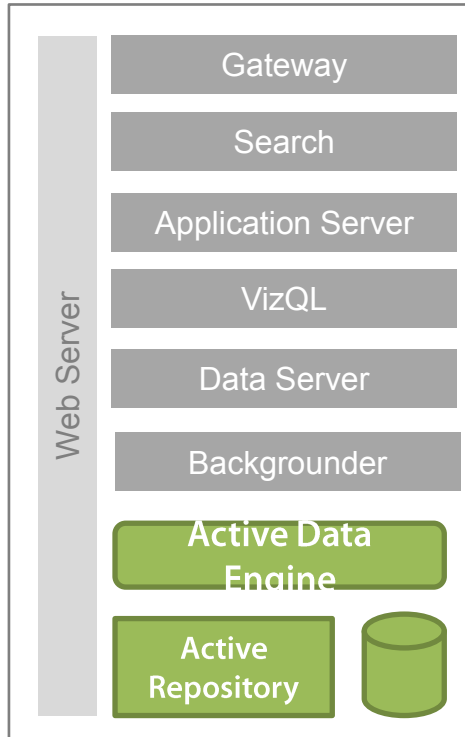- 32-bit color depth recommended
- Internet Protocol version 4 (IPv4)

Hardware Guidelines

- **Very small deployments** (1-2 concurrent users)
  - 2x CPU, 4GB RAM, 20GB HDD
- **Small deployments** (i.e. less than 25 concurrent users)
  - 4x CPU, 8GB RAM, 40GB HDD
- **Medium deployments** (i.e. less than 100 concurrent users)
  - 8x CPU, 32GB RAM, 100GB HDD
- **Enterprise deployments** (ie. more then 100 concurrent users)
  - Contact Tableau for guidance.

Tableau Server Architecture

desktop   laptop   tablet   mobile

+ableau
SOFTWARE

In-Memory   Live Connection

databases   cubes   flat files   big data   cloud

Server Processes

Web Server	
	Gateway
	Search
	Application Server
	VizQL
	Data Server
	Backgrounder
	Active Data Engine
	Active Repository

Gateway (32bit) = Load Balancer

Search (32bit) = Indexes repository

App Server (32bit) = Web UI, Security, Navigation

VizQL (32bit) = Main application engine, does everything related to views and dashboards

Data Server (32bit) = Loads cache w/ data requests, manages semantic layer (metadata layer)

Backgrounder (32bit) = Handles background refreshes and tasks (eg. Extract Refreshes and AD Sync jobs)

Data Engine (64bit) = Proprietary DB engine for Tableau Server Extracts

Repository (32bit) = Metadata for all Tableau Server Objects

Installing & Configuring (demo)

Authoring & Deploying (demo)

Summary

- **Tableau Server Features**
- **Architecture Overview**
- **Server Processes**
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- **Authoring & Deploying (demo)**
- **Summary**

Intermediate

Data Server & Taxonomies

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pluralsight
hardcore developer training

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Overview

- **Tableau Server Architecture Review**
- **Tableau Data Server Features**
- **Using Tableau Data Server (demo)**
- **Server Taxonomy Review**
- **Taxonomy Options**
- **Implementing your Taxonomy**

Tableau Server Architecture
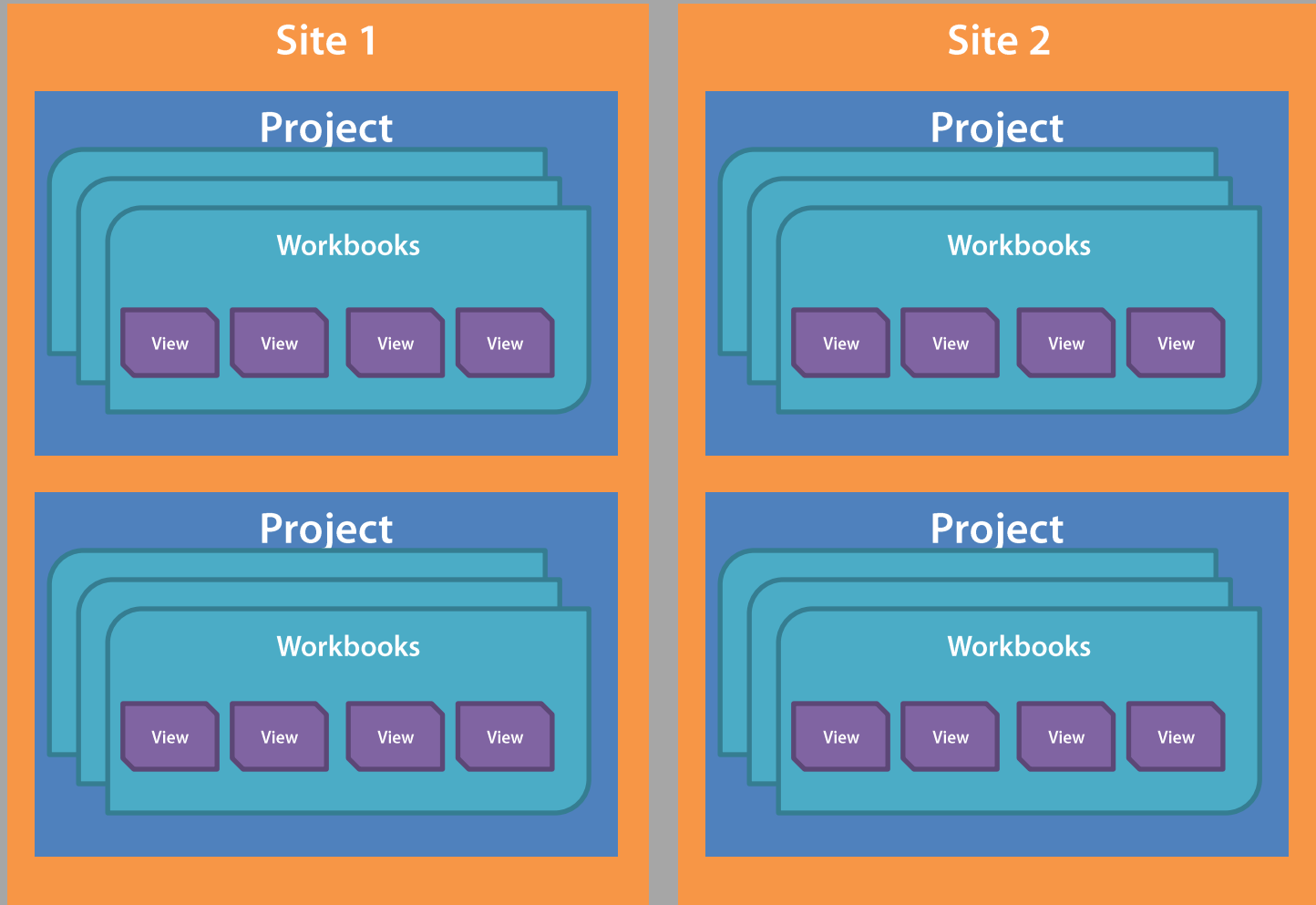
desktop   laptop   tablet   mobile

In-Memory   Live Connection

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Tableau Data Server Features

Business Features	IT Features
No drivers to install	Managed metric definitions
No password to remember	Managed joins
Data remains on server	No coding for end-users
Flexible	Updates immediately pushed
Updates managed on Server	Simplified user management

Using Tableau Data Server (demo)

Taxonomy

Taxonomy – Real World

Certification Process

Data

Publish to 'uncertified' site

Certified

BI Review and Release Process

Uncertified

Certified Happy Users

Happy Users
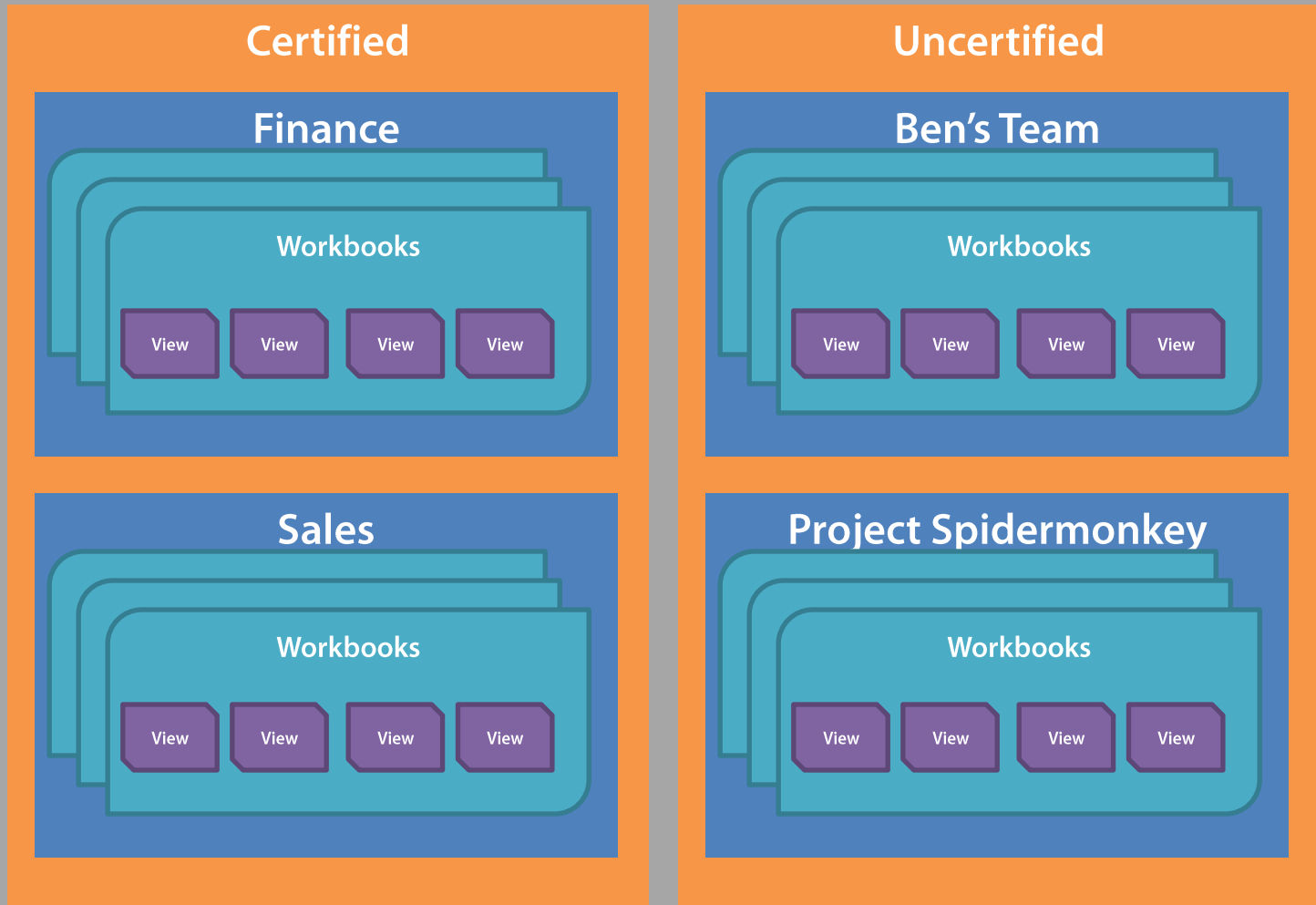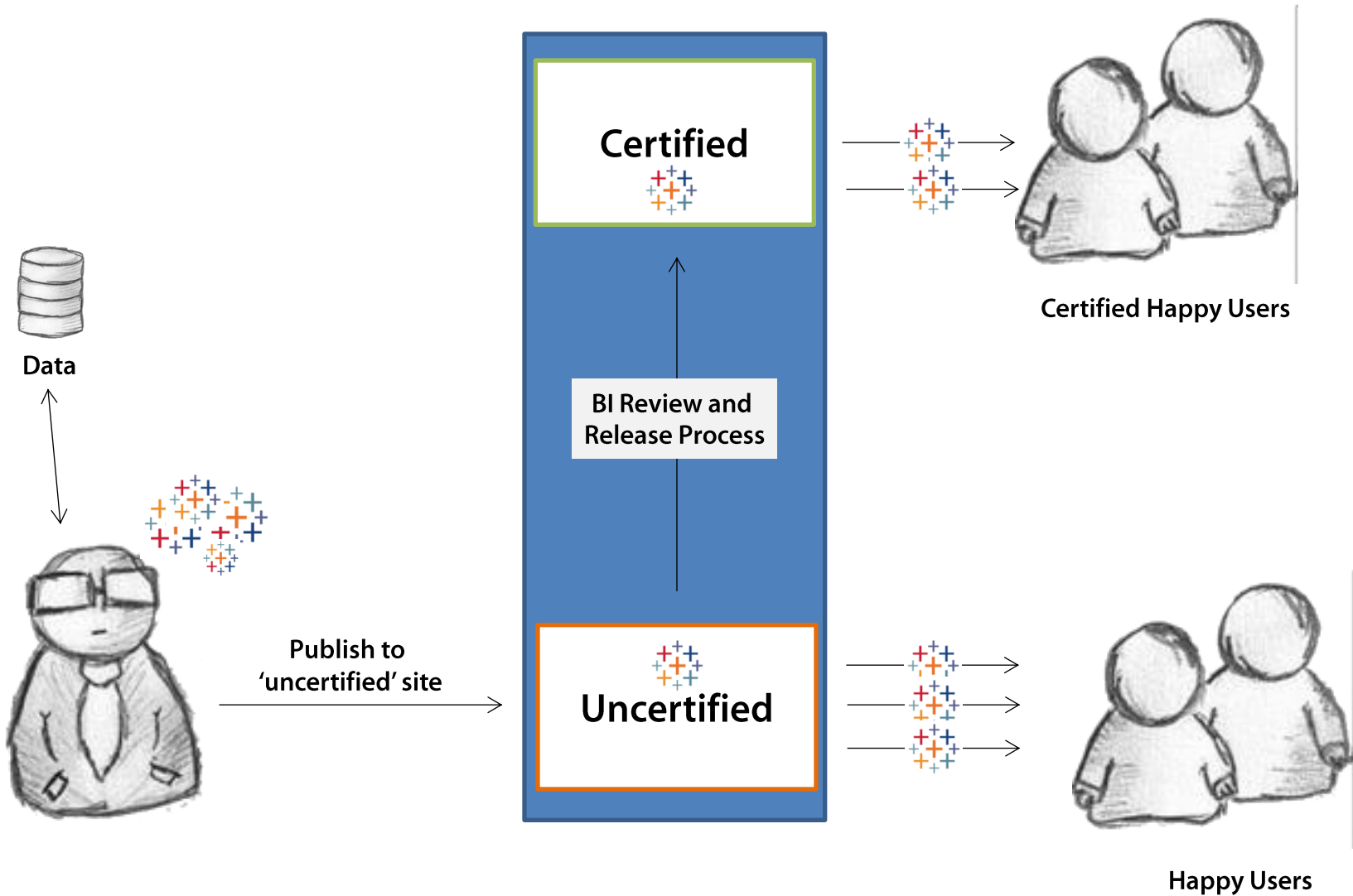
Implementing your Taxonomy (demo)

Summary

- **Tableau Server Architecture Review**
- **Tableau Data Server Features**
- **Using Tableau Data Server (demo)**
- **Server Taxonomy Review**
- **Taxonomy Options**
- **Implementing your Taxonomy (demo)**

Advanced

High Availability & Customizing

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- **Understanding High Availability**
- **Configuring High Availability (walkthrough)**
- **Customization Options**
- **Additional Customizations (not supported)**
- **Customizing (demo)**
- **Backup Automation (demo)**

Understanding High Availability

Single Node System

Primary Tableau Server

3-Node System (HA)

Primary Tableau Server (Gateway)

Worker Server
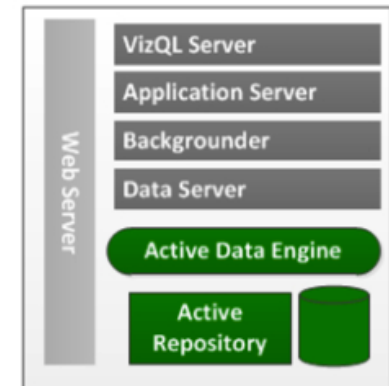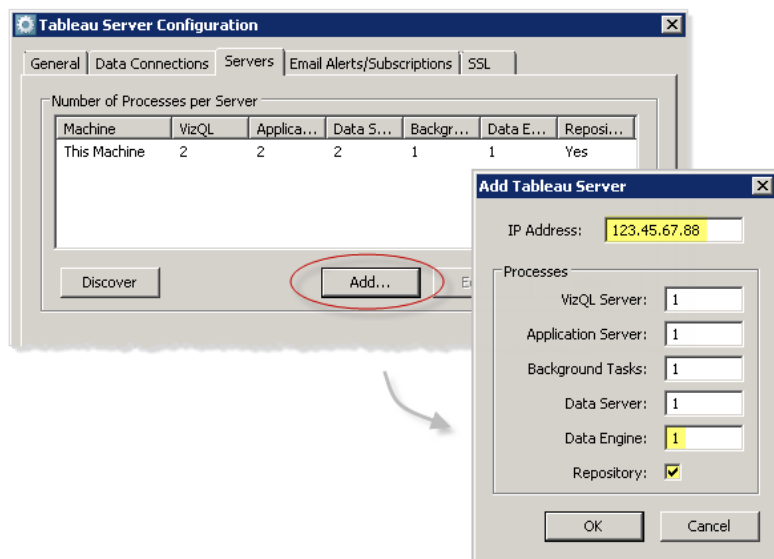
What If The Gateway Goes Down?
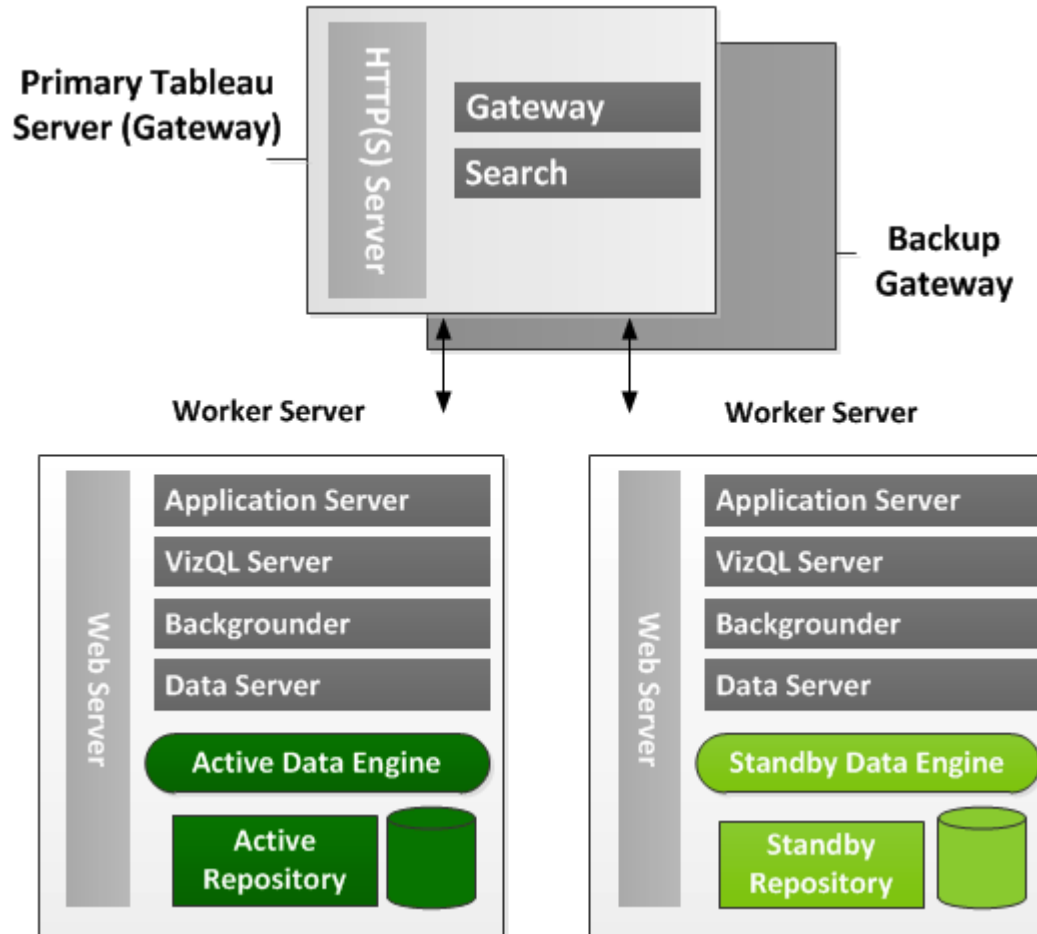
Configuring High Availability (walkthrough)

1 - Install Tableau Server on Gateway

2 - Install worker software and add worker 1

3 - Add Worker 1 to Gateway

4 - Remove processes from Gateway
5 - Add worker 2 to Gateway

http://onlinehelp.tableausoftware.com/v8.0/server/en-us/help.htm#distrib_ha_fail.htm

Customization Options (supported)
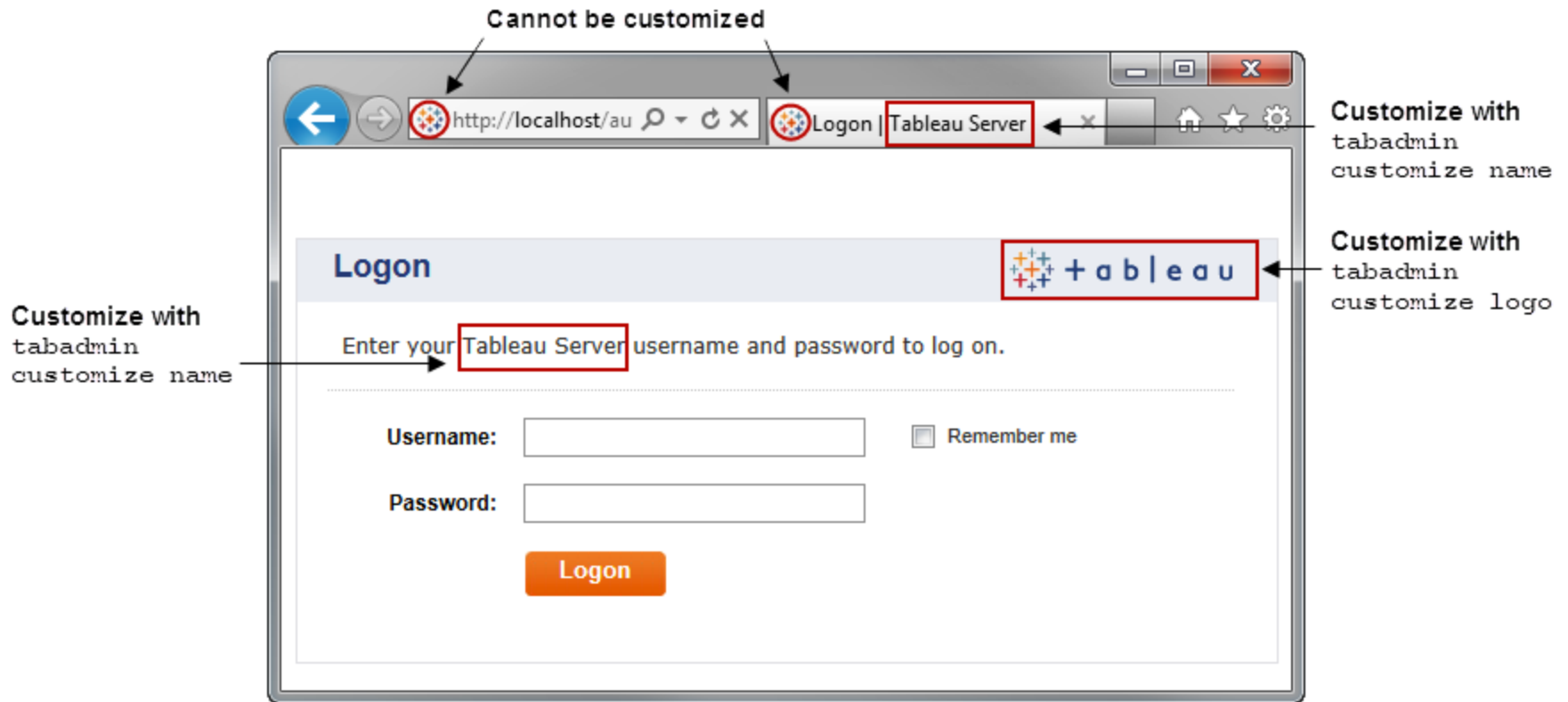
Customization Options (NOT supported)

- **Adding Google Analytics to your Tableau Server**
- **Adding real-time collaboration (togetherjs.com)**

Customizing (demo)

Backup Automation (demo)

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