Server Usage Examples

It can be difficult determining the exact server specifications for a Yellowfin instance as required resources differ greatly with the deployment model, number of concurrent users, report size and complexity, and the use of different reporting components like GIS functionality and Analytic Functions. This document will assist in determining the server specifications for a new instance of Yellowfin, using real installations as a guide.

Yellowfin Reference Installation 1

The Yellowfin deployment serves as the reporting layer for a work health safety application. Factory managers use the application to record details such as injuries and incidents at work places, safety toolkit checks, etc across factories. The reporting suite tracks and analyzes incident and injury reports.

- **Model:** Single Server Installation
- **Total number of users:** 300+
- **Concurrent users:** 30
- **Environment:** 1 application server, 1 database server. Database server contains both the Yellowfin database and the data warehouse.

Yellowfin Application Server	
Nodes	1
Application Server	Tomcat 5.5
Virtualization	VMware
Host Server	VMware ESXi 6.0
Host Processor	2 x CPUs
Virtualized Host	Microsoft Windows Server 2012 R2
Virtualized RAM	10GB
Operating System	Microsoft Windows Server 2012 R2
Disk	SAN Flash Drives

Yellowfin Database Server	
Nodes	1
Database Server	Microsoft SQL Server 2014
Virtualization	VMware
Host Server	VMware ESXi 6.0
Host Processor	2 x CPUs
Virtualized Host	Microsoft Windows Server 2012 R2
Virtualized RAM	10GB
Disk	SAN Flash Drives

Source Database Server	
Database Server	Microsoft Windows Server 2008 R2 + Microsoft SQL Server 2008 R2 running SAP
Nodes	1

Database Size	Towards 1TB

Yellowfin Reference Installation 2

This Yellowfin deployment provides analytical and historical reporting for an e-commerce company specializing in the property market - the client uses this installation to report off their internal data warehouse.

The reporting suite in this installation is used both internally by sales staff and management, and externally by real estate agents. Internally, staff utilize the internal deployment to investigate sales performance, pricing, location popularity and geographical density, whereas management and executives refer to KPI reports and dashboards to track overall organizational performance. The external deployment provides estate price, popularity, and distribution for estate agents.

- **Model:** Single Server Installation
- **Concurrent Users:** 50
- **Environment:** 1 application server, 1 database server. Database server contains both the Yellowfin database and the data warehouse.

Yellowfin Architecture Server	
Nodes	1
Application Server	Tomcat 5.5
Virtualization	VMware ESX
Host Server	ProLiant BL 460c G6
Host Processor	Intel Xeon E5520 @ 2.27GHz x 8
Host RAM	50 GB
Virtualized Host	4V CPUs
Virtualized RAM	16 GB
Operating System	Windows Server 2008 R2
Disk	SAN

Yellowfin Database Server	
Nodes	1
Database Server	SQL Server 2008
Virtualization	VMware ESX
Host Server	ProLiant BL 460c G6
Host Processor	Intel Xeon E5520 @ 2.27Ghz x 8
Host RAM	50 GB
Virtualized Host	8V CPUs
Virtualized RAM	32 GB

Disk	SAN

Source Database Server	
Database Server	SQL Server 2008
Nodes	1
Database Size	17 GB
Largest Fact Table	100 million rows

Yellowfin Reference Installation 3

This Yellowfin deployment provides analytical reporting to a higher education organization - the client uses this installation to report off their internal data warehouse.

The reporting suite in this installation is used internally by staff to track the performance and quality of research output by its constituents. Such results are analyzed with the reporting tool and compared against national/world benchmark values. This deployment is also used for monitoring and evaluating funding sources, staffing levels, current research progress, and applied measures.

- **Model:** Multi Server Installation
- **Concurrent Users:** 20
- **Environment:** 2 web servers, 2 applications servers, and a 5 node database server. The database server contains both the Yellowfin database and the data warehouse.

Yellowfin Web Server	
Nodes	2
Application Server	Apache
Virtualisation	VMware ESX
Host Server	Dell Blades (2950)
Virtualised RAM	4 GB
Operating System	Oracle Linux
Disk	LUN

Yellowfin Architecture Server	
Nodes	2
Application Server	Tomcat 5.5
Virtualisation	VMware ESX
Host Server	Dell Blades (2950)
Virtualised RAM	4 GB
Operating System	Oracle Linux

Disk	LUN

Yellowfin Database Server	
Nodes	5
Database Server	Oracle 11G
Virtualisation	Oracle RAC
Host Server	Dell
Virtualised RAM	32 GB
Disk	LUN

Source Database Server	
Database Server	Oracle 11G
Nodes	5

Yellowfin Reference Installation 4

This Yellowfin deployment provides analytical and historical reporting for a corporate travel agency; the client uses this installation to report off their third-party travel booking application's data warehouse.

The reporting suite is available to internal staff, management, and their clients – staff are able to track air/accommodation bookings and ticketing information, executives often refer to daily KPIs and high level performance across the organization, and clients can log in and view their own travel expenditure. A small portion of the reporting suite utilizes the geospatial feature to track client locations at all times – this proved to be particularly useful in the event of disasters or terrorist attacks.

Client-facing staff in sales also use the mobile BI feature of Yellowfin extensively.

- **Model:** Single Server Installation
- **Concurrent Users:** 10
- **Environment:** 1 server containing the application server, database server, and data warehouse.

Yellowfin Architecture Server	
Nodes	1
Application Server	Tomcat 5.5
Virtualization	VMware ESX
Host Server	ProLiant BL 460c G6
Host Processor	AMD Opteron 2352 @ 2.10 GHz x 4
Virtualized RAM	4 GB
Operating System	Windows Server 2003 R2
Disk	SAN

Yellowfin Database Server	
Nodes	1
Database Server	SQL Server 2008 R2
Virtualization	VMware ESX
Host Server	ProLiant BL 460c G6
Host Processor	AMD Opteron 2352 @ 2.10 Ghz x 4
Virtualized RAM	4 GB
Disk	SAN

Source Database Server	
Database Server	SQL Server 2008 R2
Nodes	1
Database Size	22 GB
Largest Fact Table	2.5 million rows (only 3 year's worth of data)

Yellowfin Reference Installation 5

This Yellowfin deployment provides analytical and historical reporting for a road tolling company – the client uses this installation to report off their internal tolling and billing system.

The reporting suite is used internally to track vehicle and tag logistics, check process and data workflows, assist in road tolling crisis management, and maintain financial integrity of their billing system.

This installation also provides financial reporting for internal staff and externally to the Australian Stock Exchange (ASX).

- **Model:** Multi Server Installation
- **Concurrent Users:** 100
- **Environment:** 2 web servers, 2 applications servers, and a 2 node database server. The database server contains both the Yellowfin database and the data warehouse.

Yellowfin Architecture Server	
Nodes	2
Application Server	Oracle Application Server
Virtualization	AIX LPAR
Host Server	IBM P570
Host Processor	16 POWER6 cores
Host RAM	49 GB

Virtualized Host	4V CPUs
Virtualized RAM	40 GB
Operating System	Oracle Linux
Disk	SAN

Yellowfin Database Server	
Nodes	2
Database Server	Oracle 10g EE Release 64bit
Virtualization	AIX LPAR
Host Server	IBM P570
Host Processor	16 POWER6 cores
Host RAM	49 GB
Virtualized Host	4V CPUs
Virtualized RAM	40 GB
Disk	SAN

Source Database Server	
Database Server	Oracle 10g EE Release 64bit
Nodes	1
Database Size	1.9 TB
Largest Fact Table	Fact Table: 11.7 million rows Table: 1.2 billion rows

Yellowfin Reference Installation 6

This Yellowfin deployment provides analytical reporting for an e-commerce company in the telecommunications sector – the client uses this installation to report off their internal data warehouse.

The client offers this reporting suite as a client-facing external feature of their portal. Businesses who sign up with this client are able to track appearances, interactions, and visibility of their online and offline advertisements, thus providing ROI reporting on their investment.

- **Model:** Multi Server Installation
- **Concurrent Users:** 6,000
- **Environment:** 4 web servers, 4 applications servers, and a 4 node database server. The database server contains both the Yellowfin database and the data warehouse.

Yellowfin Architecture Server	
Nodes	4

Application Server	Tomcat 6
Virtualization	VMware ESX
Virtualized Host	2.3 Ghz x 32
Virtualized RAM	64 GB
Operating System	RedHat 5.5
Disk	SAN

Yellowfin Database Server	
Nodes	4
Database Server	Oracle 10g EE Release 64bit
Virtualization	VMware ESX
Host Server	Sun X4600
Host Processor	2.3 Ghz x 32
Host RAM	64 GB
Virtualized Host	None
Virtualized RAM	None
Disk	SAN

Source Database Server	
Database Server	Oracle 10g EE Release 64bit
Nodes	1
Largest Fact Table	100 million rows

Previous topic: Scalability testing