

White Paper...



SAP Business Planning and Consolidation Authentication Model

SAP Product Name:	SAP BPC
Applicable Product Versions:	5.0, 5.1
Last Updated:	September 11, 2007
Version:	1.00

Corporate Performance Management

www.sdn.sap.com/irj/sdn/bpx-cpm

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Applies to:

SAP Business Planning and Consolidation, release 5.x only. The Microsoft SQL Server releases 2000 and 2005 follow the same guidelines.

Summary

If you're new to SAP Business Planning and Consolidation (BPC) you will need to understand the infrastructure of the 5.x releases and the related authentication configuration.

This document will describe the infrastructure configuration supported by SAP Business Planning and Consolidation (BPC) release 5.x. This document is intended to provide you with the underlying details.

This document is not intended to guide you to a final configuration decision. There are other factors to consider, for example how to determine the appropriate hardware and server configuration to support your usage patterns. It is our firm belief that by partnering with an authorized SAP service provider during the initial configuration you will ensure all relevant information is considered in your final configuration.

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Author Bio

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1. Introduction

SAP BPC solution is designed to meet our customer's key tenet to integrate and/or comply with their authentication infrastructure.

Wikipedia defines the term authentication as:

"In computer security, authentication is the process of attempting to verify the digital identity of the sender of a communication such as a request to log in. The sender being authenticated may be a person using a computer, a computer itself or a computer program.

In a web of trust, "authentication" is a way to ensure users are who they say they are—that the user who attempts to perform functions in a system is in fact the user who is authorized to do so."

Authentication requirements are often one of the first priorities for your implementation. In order to provide an appropriate decision you must first understand what authentication is for SAP BPC.

Server Components

To help you understand the authentication configurations let's review the technology components used by SAP BPC. For further details on the hardware requirements and underlying software requirements please refer to the service market place.

SAP Business Planning and Consolidation – Master & Installation Guide

<https://websmp110.sap-ag.de/instguidescpm-bpc>

Web server

The Web server provides launch pad for all BPC functional areas including the Web interface to zero footprint BPC functionality.

- Microsoft IIS
- Uses SOAP (Service Oriented Application Protocol) calls for communication using XML between web and application server.
- Host for ZFP (Zero footprint) Pages
- Performs user authentication

Application server

- Microsoft IIS
- Supports all SOA (Service Oriented Architecture)
- Collection of CPM Services
- Where CPM Application Business Logic Resides
- Performs user authentication

OLAP Server

- Analysis Services 2000 / 2005
- Microsoft SQL Server – Enterprise Edition (2000 and 2005)
- High performance multi-dimensional database component
- Provides detailed analysis & drill down

Microsoft SQL Server

- Enterprise Edition 2000 / 2005

-
- Supports data management activities
 - 100% Open Standard

File share

- Storage location for all application files, UNC or local drive.
- Book Repository
- Templates
- Unstructured Data
- Conversion & Transformation Files

Microsoft SQL Reporting Services

- Relational report generator
- Supports Journals, Work Process Flow, Comments and Audit reporting capabilities
- Provides Drill Through reporting to source details

Authentication Architecture

A BPC user must authenticate to the server(s) that house the 5.x platform. A user authentication will take place on one of two tiers depending on the interface the user has selected.

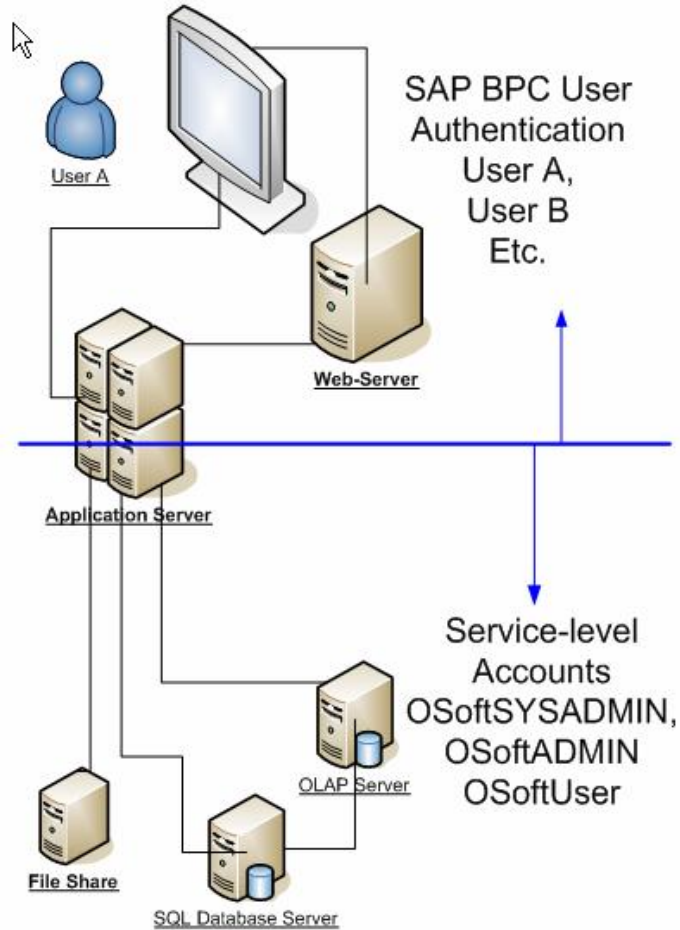
- If the user opens BPC in Microsoft Office, the user is authenticating against the Application Server tier
- If the user opens Internet Explorer, the user is authenticating against both the Web Server tier and application server tier.

Currently BPC 5 uses windows authentication (BASIC, NTLM, Kerberos with Active Directory) against a Microsoft user storage model. Once the user has authenticated, the BPC program will manage the authentication to the remaining tiers using service level accounts. For example, the application server will communicate with the database server, OLAP server and file share using a special credential set up by the system administrator of the customer.

II. Authentication Regions

- Clients directly access Web Server(s) via IE
- Clients directly access Application Server via Microsoft Office
- Clients cannot directly access SQL, OLAP, or File Share
- Only the Application Server connects to SQL, OLAP, and File share resources

Diagram A below will help you visualize the authentication regions:

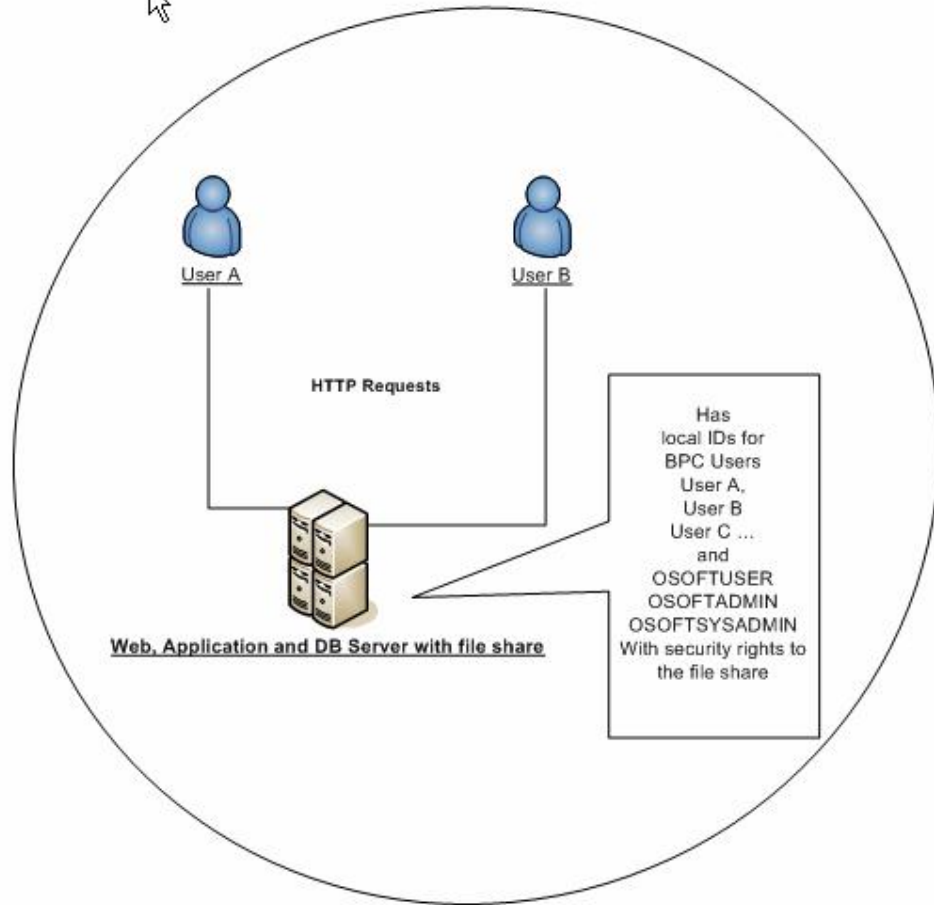


During the installation you will be prompted for 3 service-level accounts (windows userids) for 3 levels of privilege (sysadmin, admin, user). These accounts are used in:

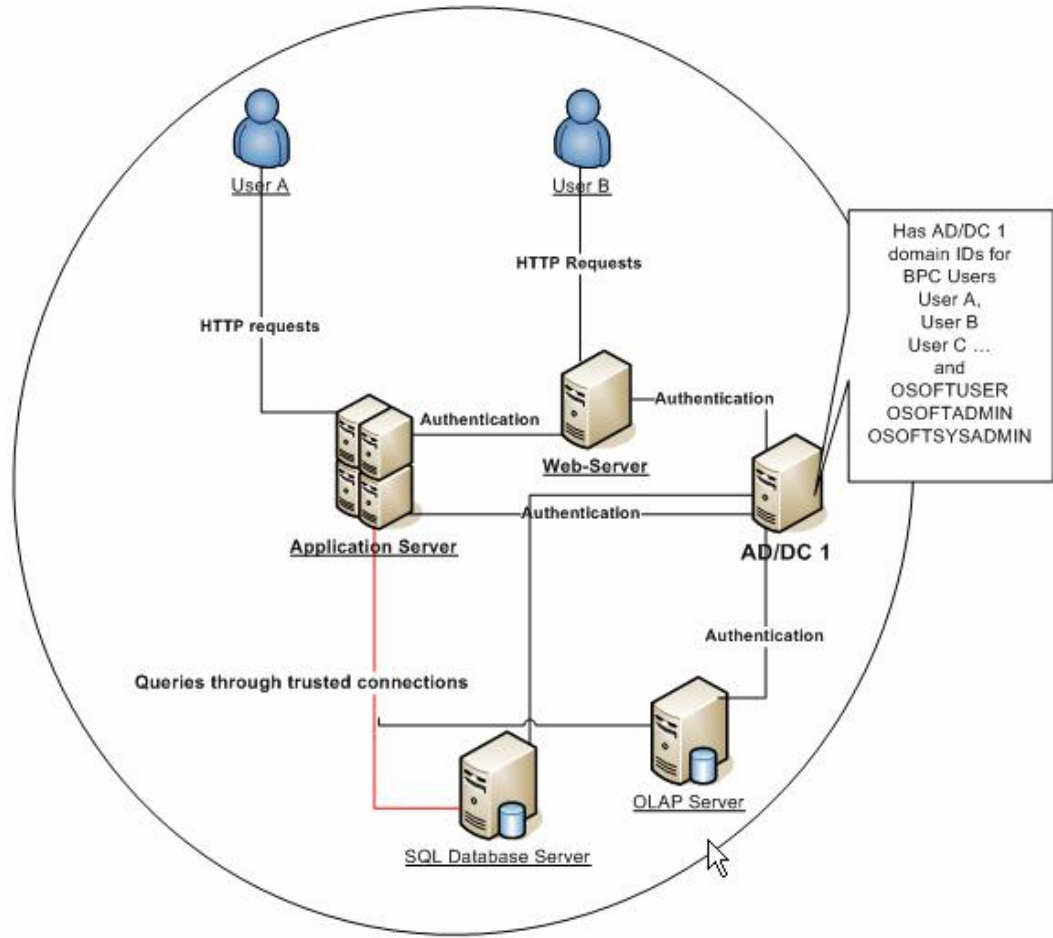
- COM+ components
- SQL (trusted connection)
- OLAP DB (trusted connection)
- Working to provide least-privileged access

The following will help you understand the available server configuration impact on authentication.

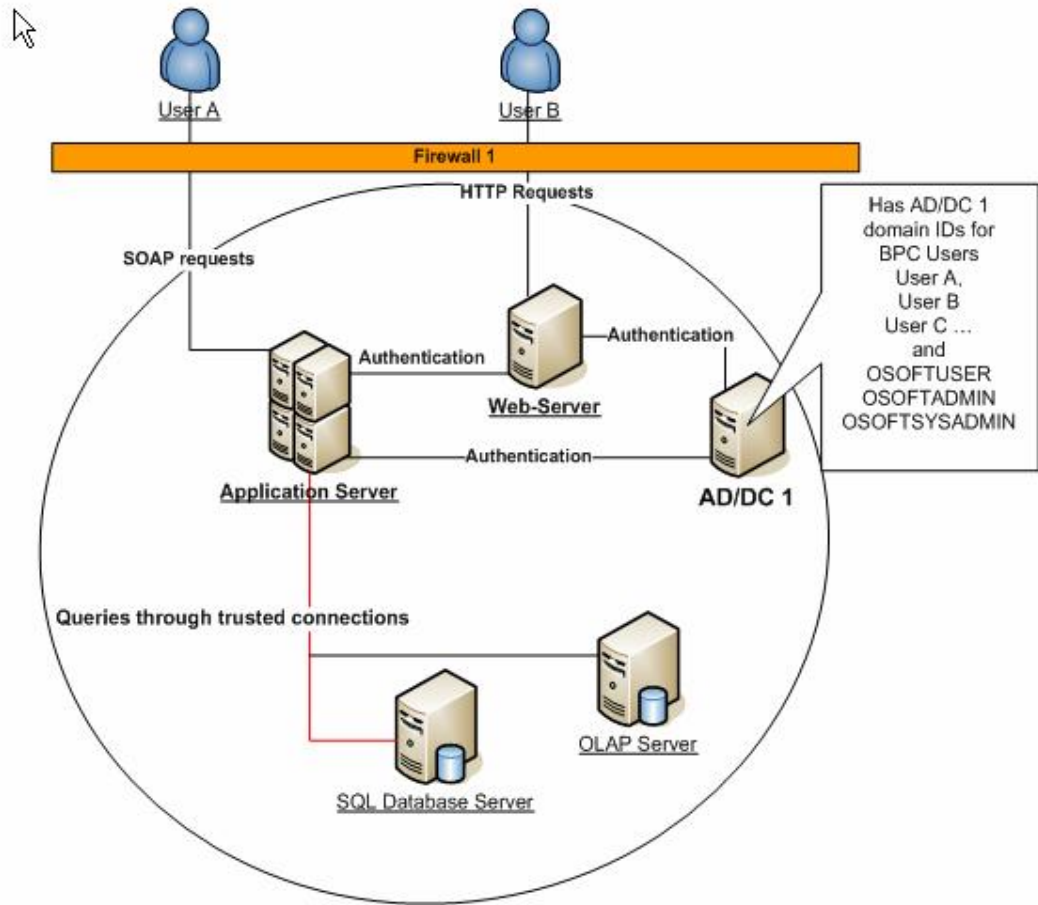
Single Server



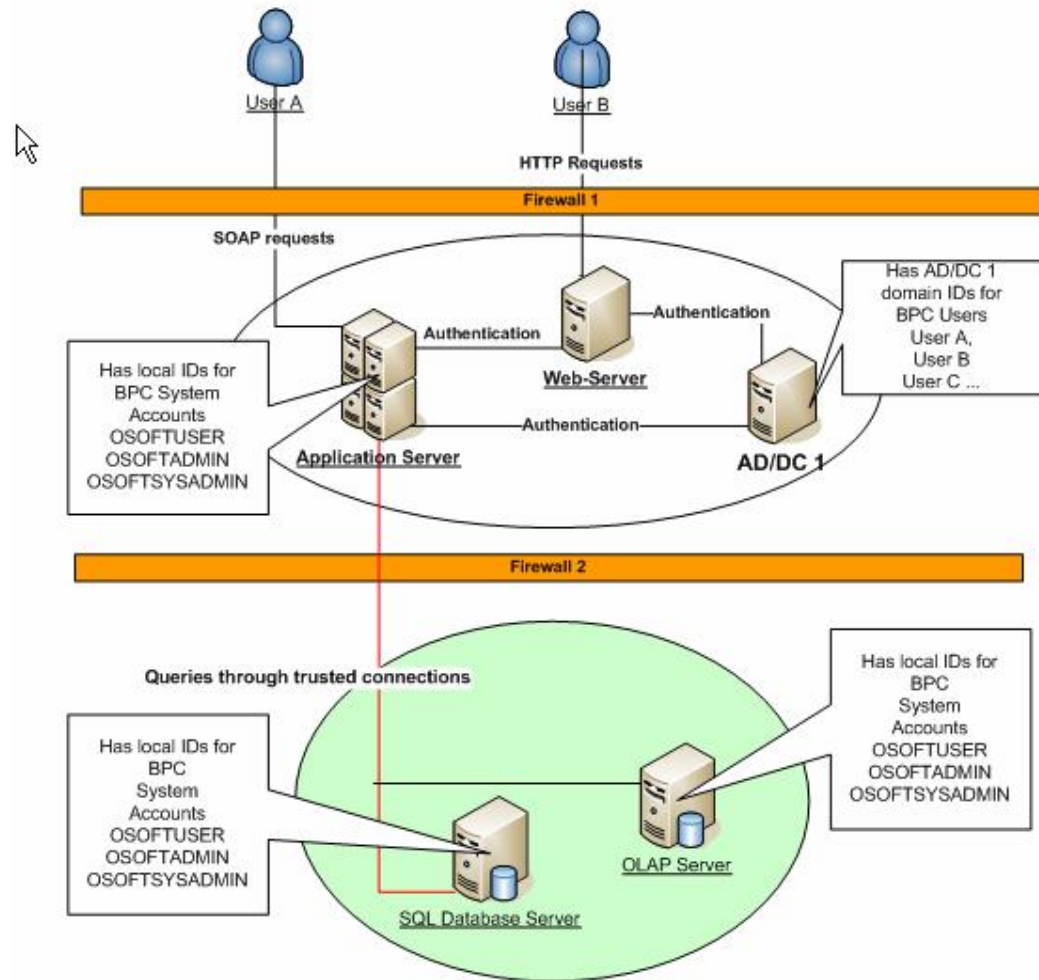
Multi-server



Firewall basic



Firewall – trusted or mirrored accounts



III. Conclusion

Hopefully you find this document has been educational and will assist you in working with your SAP service provider. We encourage you to continue your information gathering by reading our master & installation guide available with the software. The combined information will help you achieve the optimal configuration for environment.