

Business Objects XI Integration for SAP Solutions

SAP security Integration



Information & Platform Service
Mike Seblani
Boris Kovacevic

February 18, 2009

THE BEST-RUN BUSINESSES RUN SAP



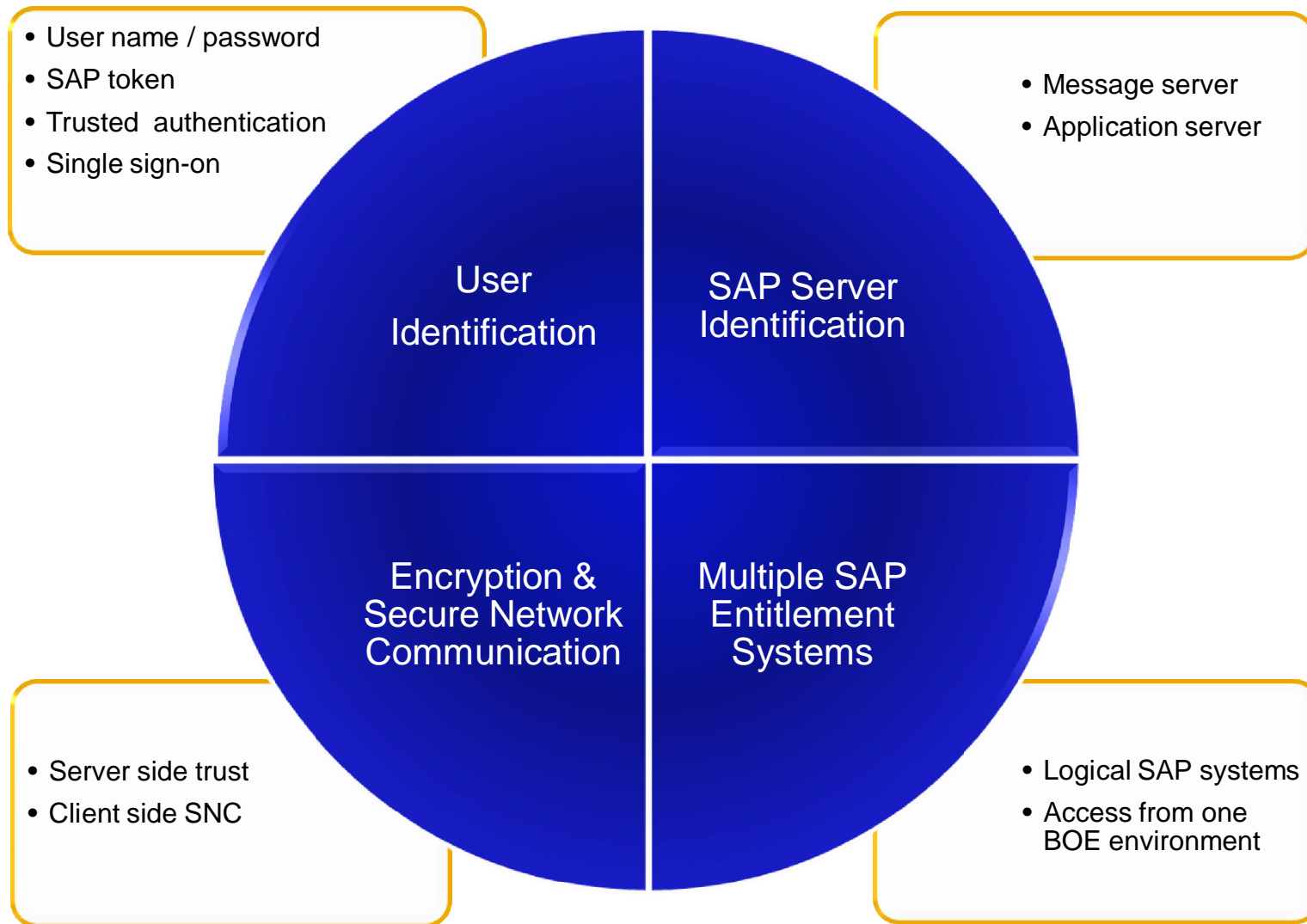
Agenda



1. Challenges when using SAP security
2. SAP security in unmanaged scenarios
 - 2.1. Crystal Reports
 - 2.2. Universe Designer
3. SAP security and single sign-on in BusinessObjects Enterprise
 - 3.1. Simple scenarios
 - 3.2. Complex scenarios
4. Solution Fundamentals
 - 4.1. Prerequisites
 - 4.2. Security product matrix

Further Information

Challenges when using SAP security



Security in unmanaged scenarios



- Connection to SAP requires a combination of the following:
 - User name/password*
 - SAP server identification
 - Application server name and system number
 - Message server name and logon group when connecting to a cluster of SAP systems
 - System ID
 - System Number
 - Client Number
 - Language

- Crystal Reports vs. Universe Designer
 - Differences in connection capabilities
 - Differences in connection UI

* Password-less connections can be configured on SAP systems using SNC

Unmanaged Crystal Reports case

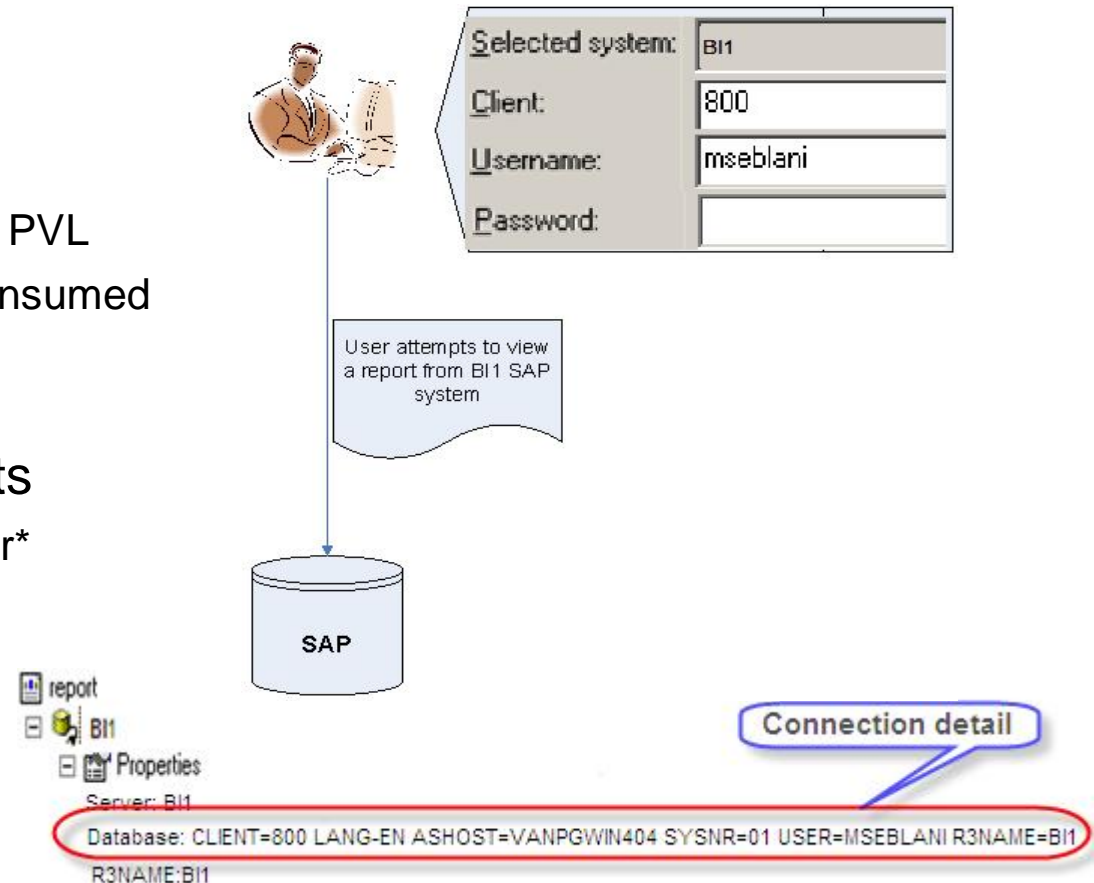


■ SAP connection via Crystal Reports:

- Username/password required
- Client number required
- Connection language based on PVL
- Other connection details are consumed from SAP Frontend INI files

■ Client SNC in Crystal Reports

- For data access via SAP toolbar*



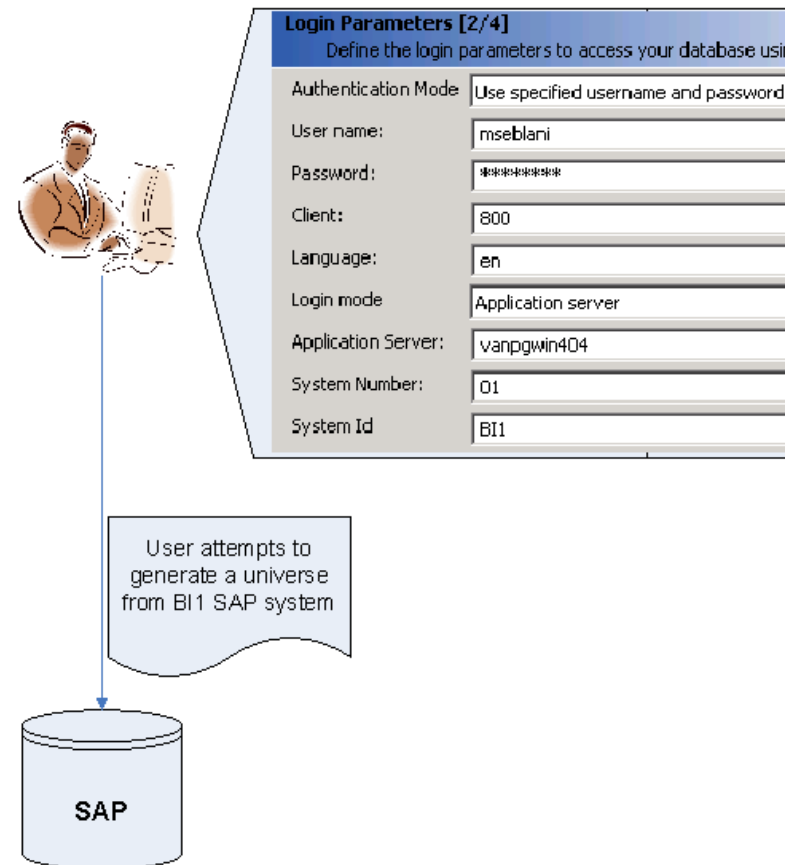
*SAP authentication to BOE repository requires username/password even when client SNC is configured

Unmanaged Universe Designer case



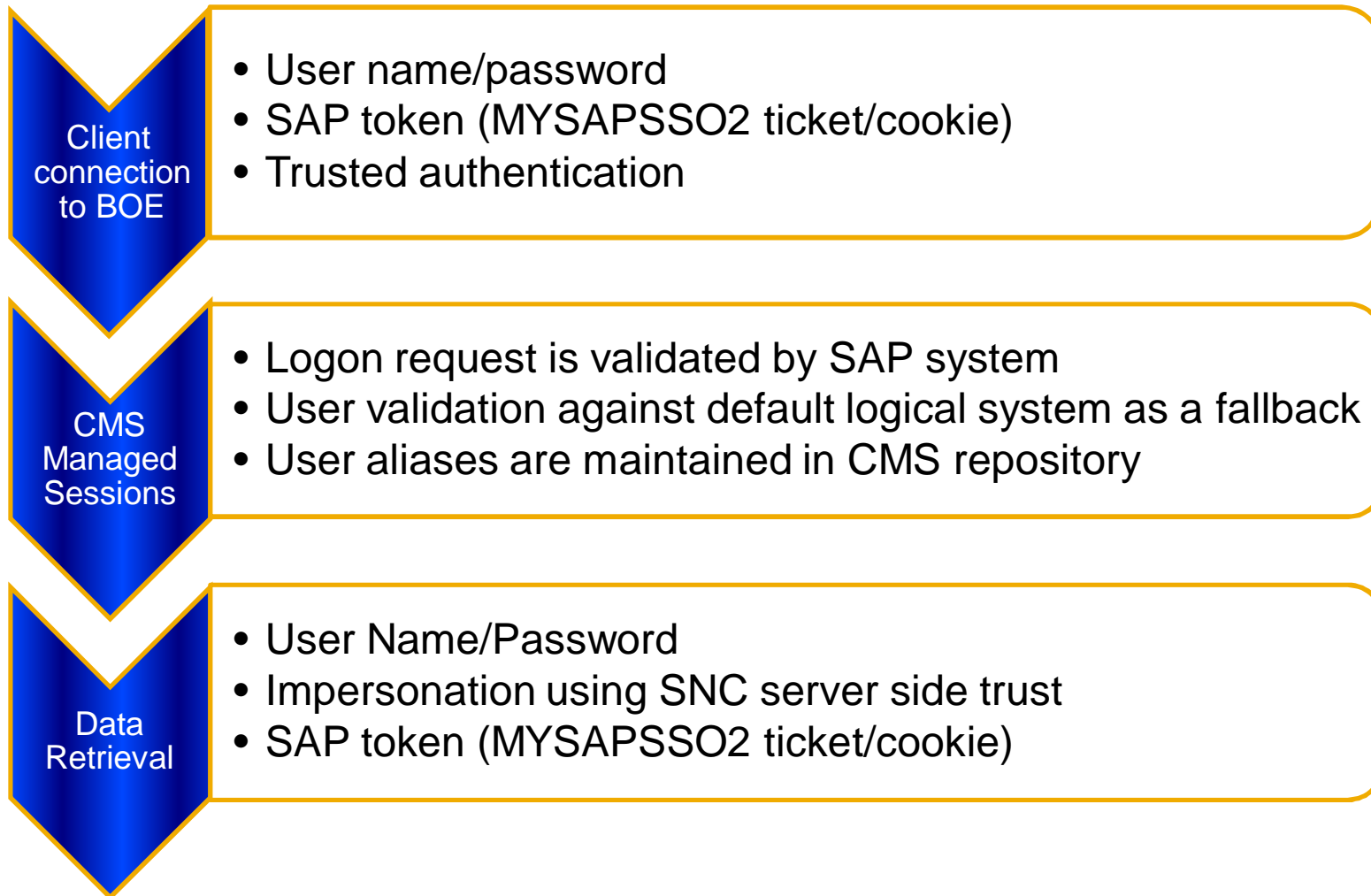
■ SAP connection via Universe Designer

- Username/password required*
- Client number required
- System Number required
- System ID required
- Connection language required



*Username/password are not required to log on to BW if SAP authentication was used to log on to BOE and the connection is configured with “Use Single Sign On when refreshing reports at view time” option

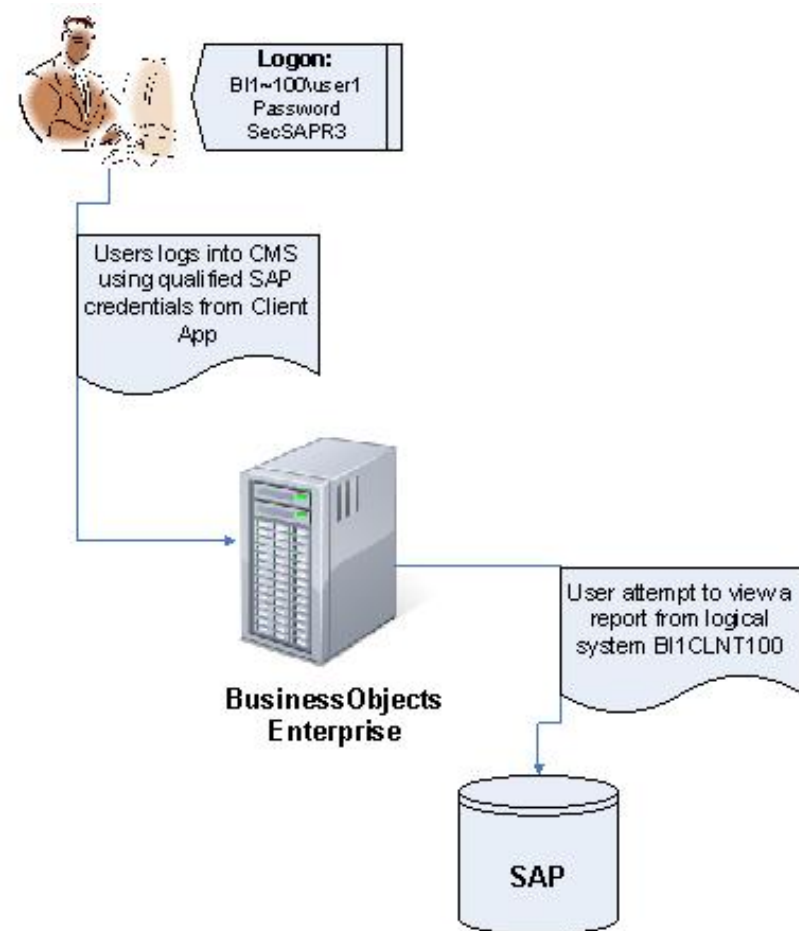
BusinessObjects Enterprise case



Simple managed scenario



- Logon to BOE via Business Objects XI client
 - Username/password provided
 - Logical system name included
- Connection created on CMS
 - BOE session is created
 - CMS is queried for a specific report from the same logical system
- Report processing server connecting to SAP system
 - Processing server such as Crystal Report server or Web Intelligence connects to SAP with username/password



Complex scenario



■ Logon to SAP EP with X509 certificate

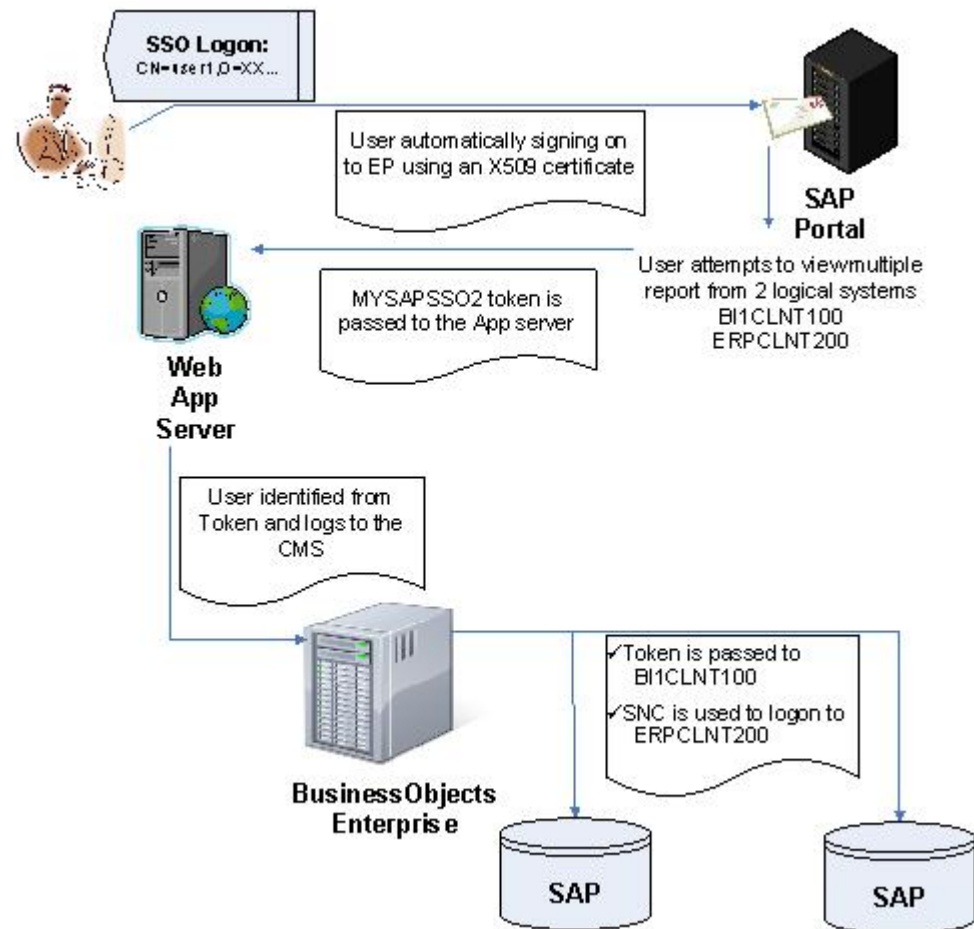
- EP generates a token for the user
- Token passes through the web application server hosting BOE environment

■ Connection created on CMS

- SAP system to validate logon request specified via `SAP_SYSID` and `SAP_CLIENT` URL parameters
- Default logical system used when System ID and Client not present
- CMS is queried for reports from multiple logical SAP system

■ Report processing server connecting to SAP system

- Crystal Report processing server connects to SAP using `SNC` if enabled otherwise attempts to connect with SAP token *
- Web server connects to SAP using `SNC` if enabled otherwise attempts to connect with SAP token *



*SAP tokens have an expiry date and will become invalid for scheduled reports; thus SNC or specified username/password must be used instead



- Users must be imported from an SAP ABAP system into BOE
 - SAP authentication configured within CMC

- Imported SAP users are qualified with logical system name
 - Logical system name derived from SAP System ID and Client number

- Support for multiple SAP systems in single BOE environment
 - URL request must contain System ID and Client number to validate logon request using specific SAP logical system
 - Default system is configured in SAP authentication configuration page within CMC
 - Support for simplified user name vs. fully qualified user name for logon

- Non-SAP authentications such as LDAP or AD require SNC server side trust to connect to SAP to achieve SSO

Prerequisites



■ BOE Server

- Install SAP Frontend
- Install SAP Java Connector
- Install XI Integration Solution for SAP
- Import SAP roles and users from SAP ABAP systems into BOE
- Alias users from multiple logical SAP systems (optional)
- Configure SNC server side authentication (optional)
- Configure web application server hosting BOE for SSO

■ SAP Server

- Install the SAP authentication helper transport (Optional)
- Ensure SAP roles contain users
- Configure SAP EP and SAP ABAP trust for token or SNC validation (Optional)

■ Thick client (Crystal Reports and Universe Designer)

- Install SAP Frontend
- Install XI Integration Solution for SAP
- Enable client side SNC for Crystal Reports (Optional)

■ Thin Client

- Configure BOE web application server for SNC (optional)

Security Product Matrix



		Client SNC	Server Side Trust	SAP Token	SAP User/pwd
Clients	Crystal Reports	Yes			Yes
	Designer				Yes
	Qaaws Designer				Yes
	Xcelsius Designer				
	Live Office				Yes
	InfoView			Yes	Yes
Servers	CrProc servers		Yes	Yes	Yes
	Web Intelligence		Yes	Yes	Yes
	Voyager (MDAS)		Yes	Yes	Yes

- Submit additional questions to
 - <https://www.sdn.sap.com/irj/sdn/forums> (External)
Expert Forums » Business Objects » Integration Kits - SAP

- Contacts
 - Product Manager: Ingo Hilgefort
 - Program Manager: Mike Seblani and Boris Kovacevic

Thank you!



Ⓢ No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Ⓢ Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Ⓢ SAP, R/3, xApps, xApp, SAP NetWeaver, Duet, SAP Business ByDesign, ByDesign, PartnerEdge and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. Business Objects and the Business Objects logo, BusinessObjects, Crystal Reports, Crystal Decisions, Web Intelligence, Xcelsius and other Business Objects products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Business Objects S.A. in the United States and in several other countries. Business Objects is an SAP Company. All other product and service names mentioned and associated logos displayed are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

Ⓢ The information in this document is proprietary to SAP. No part of this document may be reproduced, copied, or transmitted in any form or for any purpose without the express prior written permission of SAP AG. This document is a preliminary version and not subject to your license agreement or any other agreement with SAP. This document contains only intended strategies, developments, and functionalities of the SAP® product and is not intended to be binding upon SAP to any particular course of business, product strategy, and/or development. Please note that this document is subject to change and may be changed by SAP at any time without notice. SAP assumes no responsibility for errors or omissions in this document. SAP does not warrant the accuracy or completeness of the information, text, graphics, links, or other items contained within this material. This document is provided without a warranty of any kind, either express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, or non-infringement.

Ⓢ SAP shall have no liability for damages of any kind including without limitation direct, special, indirect, or consequential damages that may result from the use of these materials. This limitation shall not apply in cases of intent or gross negligence.

Ⓢ The statutory liability for personal injury and defective products is not affected. SAP has no control over the information that you may access through the use of hot links contained in these materials and does not endorse your use of third-party Web pages nor provide any warranty whatsoever relating to third-party Web pages.