



Groupware Framework

**SAP NetWeaver Product Management**

## **Groupware Framework - Overview**

Configuring Groupware Integration (E-Mail)

Configuring Groupware Integration (Calendar)

Native Web Client Integration

Multiple Groupware Servers and Domains

Summary

# Collaboration Services

ITelO Welcome Susan Summer

Collaboration | Search | Advanced Search

Corporate Home | Business Area | Mailbox | Collaboration | Business Explorer

News | Info Map | About Us | Events | Employee Self-Service | Shopping | My Info | Bulletin Board | Weekly Menu

Documents | History | Back | Forward

**Laptops Sales Team** Collaboration Room 3:52 PM

Room Documents

Text has been saved

Laptops Sales Team

Name	Size Rating	Modified
Press Releases		4/14/05 3:53:03 PM
Pricing Guidelines		4/14/05 3:56:51 PM
Publicly Available Competitor Information		4/14/05 3:57:18 PM
ROI Reports		4/14/05 4:10:46 PM
Sales Kits		4/14/05 4:14:25 PM
Sales Training Materials		4/14/05 4:14:42 PM
80% - 30% criteria not met in last quarter	47,2 KB	8/22/05 4:59:04 PM
Laptop Sales Broadcast September	360,2 KB	8/22/05 4:55:20 PM
Sales up 50,000 \$ last Month	572,2 KB	8/22/05 4:56:53 PM

Room Calendar

Appointments | Availability | My Appointments

Thursday, June 30, 2005

8:00 am 9:00 am 10:00 am 11:00 am 12:00 pm 1:00 pm 2:00 pm 3:00 pm 4:00 pm 5:00 pm 6:00 pm

Room Member List

Refresh Auto-Detect Status

Collaboration

Name

- Andrews, David
- Fall, Franco
- Hicks, Maria
- Rath, Ralf
- Spring, Sally
- Summer, Susan
- Winter, Walter

Legend: Busy (blue), Out of Office (orange), Information Not Available (white)

## KM Services

- Subscribe
- Feedback
- Review
- Rating
- Personal Notes
- Discussions

## Synchronous Services

- Instant Messaging
- Application Sharing

## Groupware Services

- Calendar
- Availability
- Appointments
- E-Mail

## Other Services

- Tasks
- Sessions
- Custom services...

# Groupware Services



## Portal

**Collaboration Launch Pad**

**Collaboration**

- Walker, Jo
- Brown, John
- Gruppe A
  - Chang, Jane
  - Miller, Mary

Send E-mail  
Create Appointment  
Show Availability  
Send Instant Message  
Start WebEx Session  
Create Room  
Create Task  
Feedback

## Collaboration Room

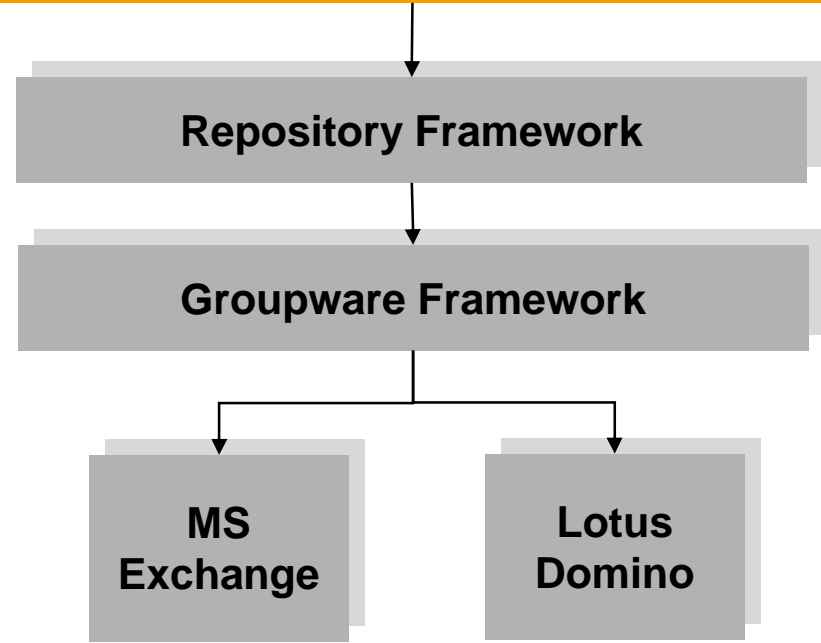
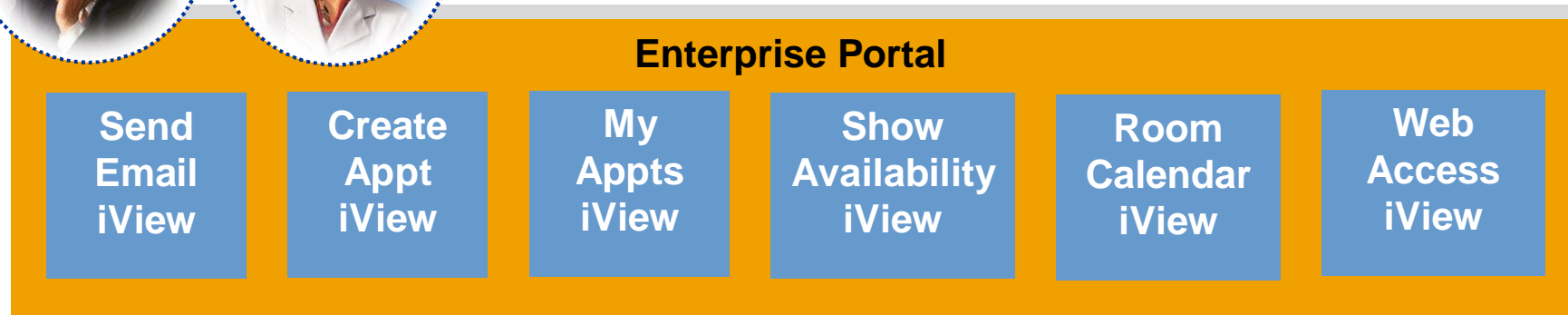
**Room Member List**

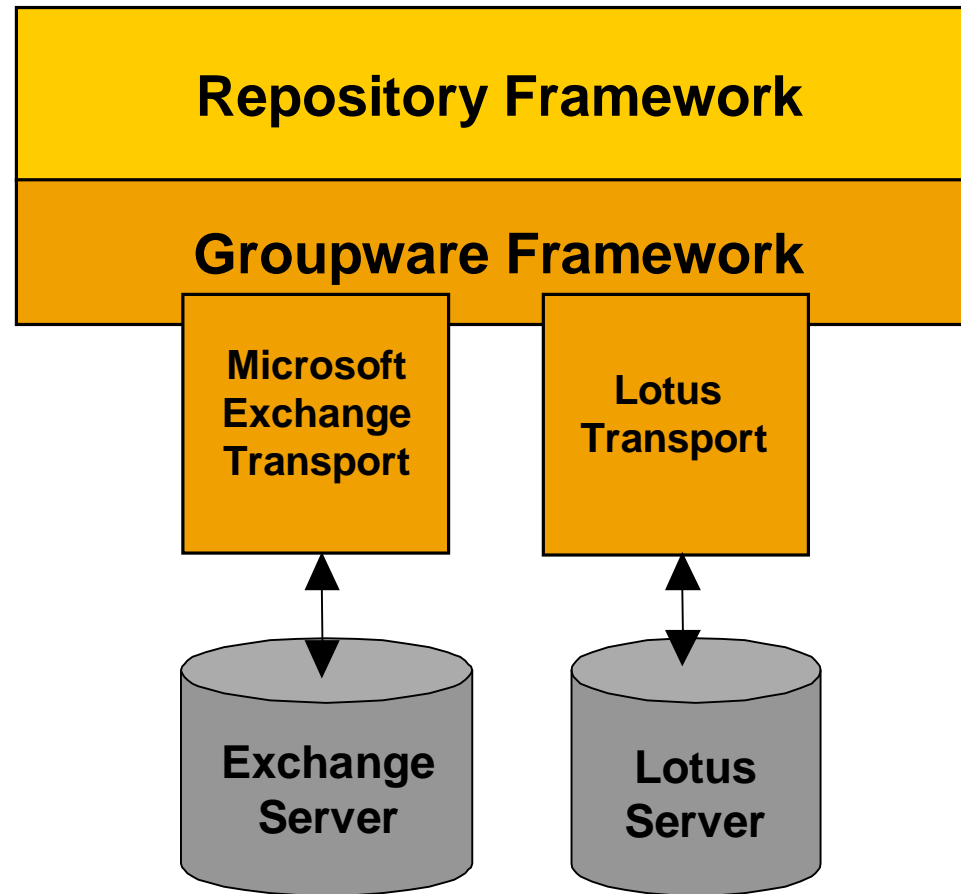
**Collaboration**

- Walker, Jo
- Brown, John
- Gruppe A
  - Chang, Jane
  - Miller, Mary

Send E-mail  
Create Appointment  
Show Availability  
Send Instant Message  
Start WebEx Session  
Create Room  
Create Task  
Feedback

# Where does Groupware Framework fit in..



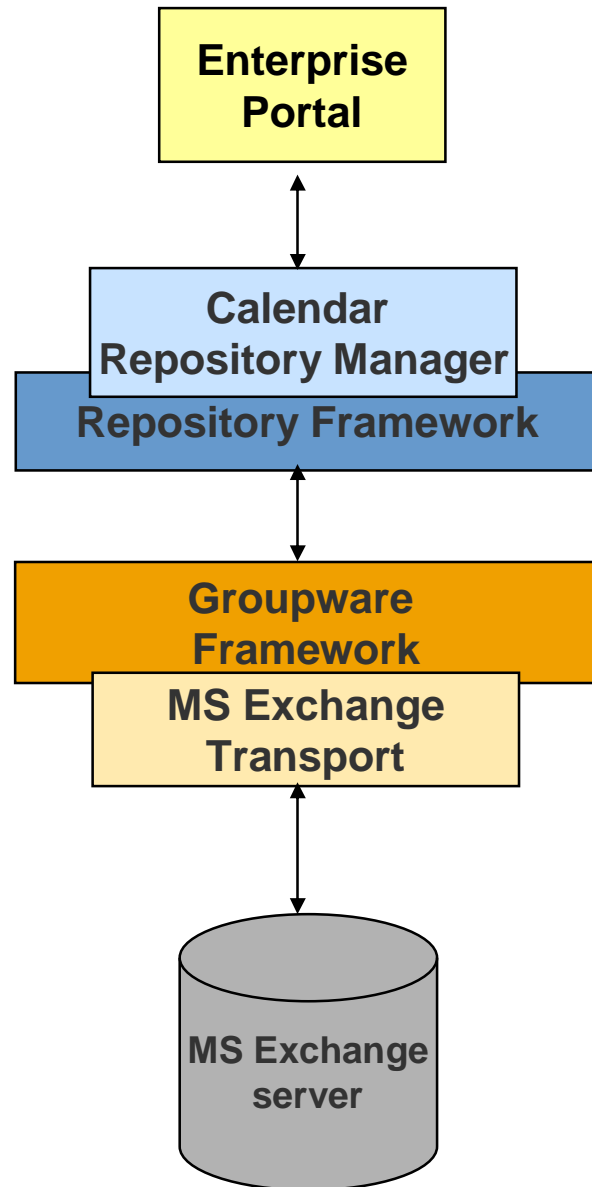


- The **Groupware Framework** enables portal users to use e-mail and scheduling capabilities provided by third-party vendors. Portal users can access them via:
  - Collaboration Launch Pad
  - Room Member List
  - Room Calendar
  - People Renderer (context menu)
  
- The Groupware Framework (written entirely in Java) allows quick development and deployment of reliable, secure, scalable, and manageable transports

- **Connectivity to a groupware system is implemented and configured as a **Groupware Transport****
- **The transport implements the necessary API for data extraction and submission to the groupware system in question by using the vendor-specific libraries**
  - **Microsoft Collaborative Data Object is required in order to connect to the Microsoft Exchange server**
  - **Lotus Domino toolkit is required in order to connect to the Lotus Domino server.**
- **SAP ships Microsoft Exchange and Lotus Notes transports out-of-the-box**
- **In order to integrate another groupware application, you need to develop and deploy a new transport**



# Groupware Process Flow (Example)



1. The user interface from the portal calls the Calendar Repository Manager from within the Repository Framework of Knowledge Management.
2. As the Calendar Repository Manager is based on the Repository Framework it delegates a call to the Groupware Framework so the Calendar Repository Manager provides the option of connecting to the required transport for the Groupware application. No data is stored within this repository and is just used as an interface to the Groupware Framework.
3. The Groupware Framework delegates the call to the relevant configured transport which is the connector to the groupware server.
4. The transport fetches the data from the relevant server and returns the call.

## ■ Microsoft

- **SSO with SAP Logon Tickets possible with MS Windows Server 2003 (using SSO to Kerberos Mapping Filter)**
- **Prior to MS Windows Server 2003 user mapping is required from the portal to the Exchange system**

## ■ Lotus

- **SSO with SAP Logon Ticket possible (SAP ticket verifier needs to be installed on Domino server)**  
*Note: The SAP ticket verifier is currently available only for Domino server running on Windows platforms.*
- **SSO with LtpaToken which is accepted natively by domino (Web-SSO needs to be configured for LtpaToken in Domino)**
- **User mapping to Lotus server**

The **Groupware Framework** supports the functions listed below. Please note that the capabilities actually available depend on the transport deployed and its capabilities.

### E-mail Capabilities

- Sending e-mails using SMTP servers
- Saving sent e-mails on groupware servers that support IMAP
- Sending e-mails in HTML format
- Sending e-mails with attachments

# Capabilities (Calendar)

The **Groupware Framework** supports the functions listed below. Please note that the capabilities actually available depend on the transport deployed and its capabilities.

## Calendar Capabilities

- Creating non-recurring appointments
- Creating daily/weekly recurring appointments
- Sending non-recurring meeting requests
- Sending daily/weekly meeting requests
- Reading appointments
- Modifying appointments
- Deleting appointments
- Modifying entire series of recurring appointments (Microsoft Exchange Server only)
- Deleting entire series of recurring appointments
- Modifying current instance of recurring appointments
- Deleting current instances of recurring appointments
- Sending meeting requests with attachments
- Scheduling online meetings

Groupware Framework - Overview

**Configuring Groupware Integration (E-Mail)**

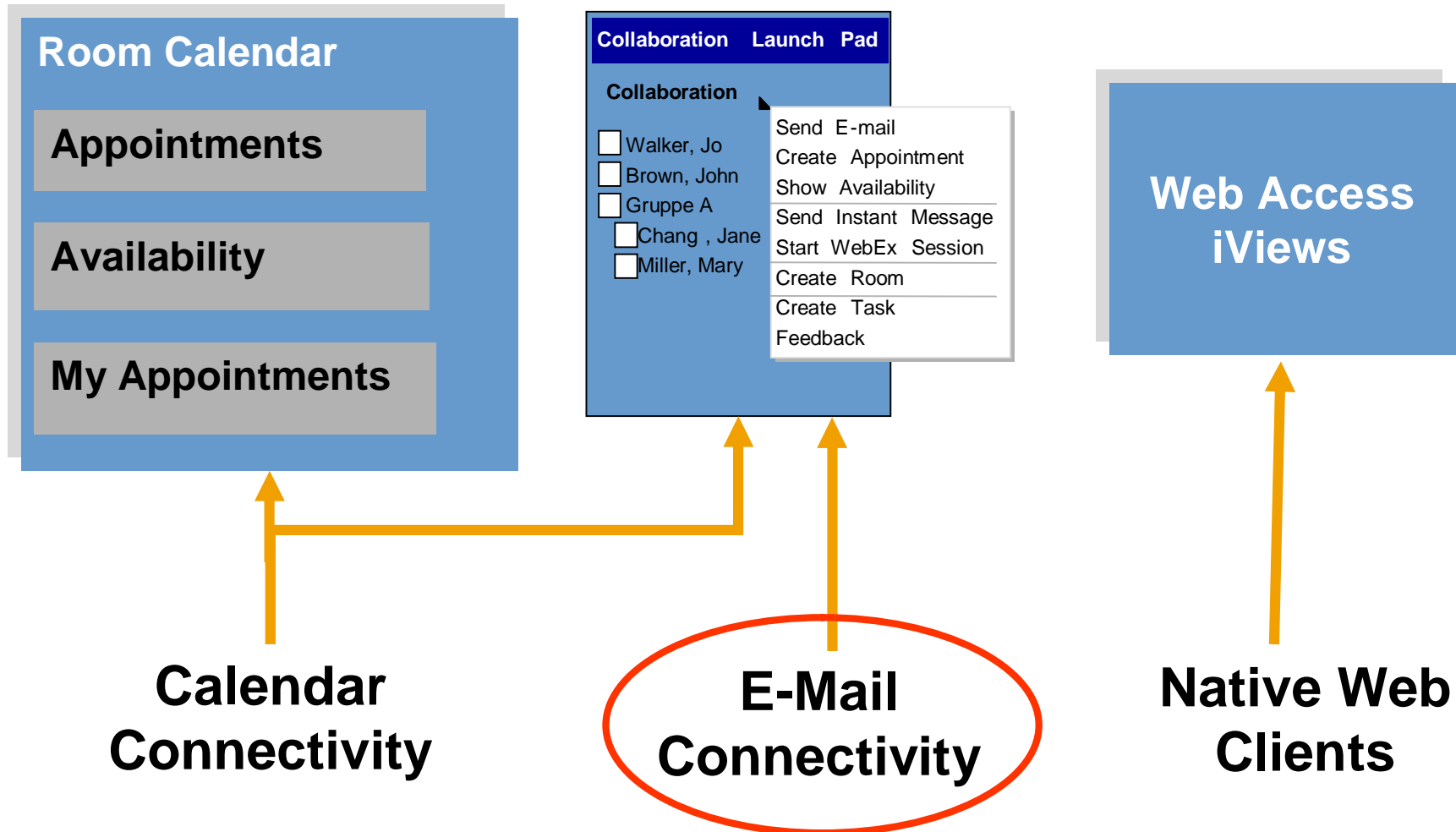
Configuring Groupware Integration (Calendar)

Native Web Client Integration

Multiple Groupware Servers and Domains

Summary

# Groupware Configuration Tasks



# E-mail Integration—Configuration Steps

## Step 1 – Create System\*

A system allows you to maintain the credentials for a transport and it is used in the E-mail transport to define the groupware server.

## Step 2 – Create E-mail Transport\*

The e-mail transport defines the SMTP server and other configurations required for sending e-mails.

**SMTP server** - Address of the SMTP server for sending e-mails

**System alias name** - Alias that was defined for the groupware server in the system configuration in step 1

**Sent Messages Folder** - Specify the folder on the server where the sent e-mail is to be stored this can be *Sent Items* on the Microsoft Exchange server or *Sent* on the Lotus Domino server. If this value is not specified, users are unable to save e-mails sent from the portal.

## Step 3 – Check E-mailing Service\*

This is a global service that is required for sending e-mails. This service needs to be active and an e-mail transport has already been created.

**\*For a detailed step description, please refer to the slide notes**

# Configuration Step: Create System

The screenshot displays the SAP System Landscape configuration interface. The main window is titled "System Landscape" and includes a navigation pane on the left and a main content area on the right. The navigation pane shows a tree structure under "System Landscape", with "Collaboration" selected. The main content area is divided into three tabs: "Overview", "Exchange", and "New System". The "Exchange" tab is active, showing a "Property Editor - Exchange" window. This window contains several fields for configuring an Exchange system:

- Property Category: System
- Component Type: com.sapportals.portal.system
- Description: (empty field)
- Domain: (empty field)
- E-Mail Server: (empty field)
- Name: Exchange
- System Identifier: Microsoft\_Exchange\_Server
- User Mapping Fields: mailserver
- User Mapping Type: admin,user
- Version: 1.0



# Configuration Step: Create E-mail Transport


**Collaboration**


Actions ▾ History ▾ Mode ▾ Help ▾

**Topic Area:**  
[Configuration](#)  
↳ [Collaboration](#)  
    ↳ [Groupware](#)  
        ↳ [Transports](#)

**Topics**  
[Exchange Transport \(1\)](#)  
[Lotus Transport](#)  
[Mail Transport \(1\)](#)

**Mail Transport**  
Transport for sending e-mails using the Java Mail library

	Name	SMTP server	Sent messages folder	System alias name
<input type="checkbox"/>	<a href="#">JavaMailTransport</a>	tdcdemomail03.wdf.sap.corp	Drafts	Exchange

 Page 1 / 1

**View "JavaMailTransport"**

SMTP server \*

Sent messages folder \*

System alias name \*

# Configuration Step: Check E-mailing Service

**Content Management**

Actions ▾ History ▾ Mode ▾ Help ▾

**Topic Area:**  
[Configuration](#)  
↳ [Content Management](#)  
    ↳ [Global Services](#)

**Subareas**  
[Crawler Parameters](#)  
[Network Paths](#)  
[Property Metadata](#)  
[Property Structures](#)  
[Resource Filters](#)  
[Resource List Filters](#)  
[Resource Types](#)  
[Scheduler Tasks](#)  
[System Landscape](#)  
[Definitions](#)  
[UserPhoto](#)

**Mailing Service** + Deleting configuration objects requires that you restart the servlet engine  
This service is used for sending e-mails. The Mail Transport must be configured.

**View "SendMailService"**

| Active  +

| Max No of Recipients for External Facing Portal

[Edit](#) [Hide Advanced Options](#) (+ denotes advanced options)

Groupware Framework - Overview

Configuring Groupware Integration (E-Mail)

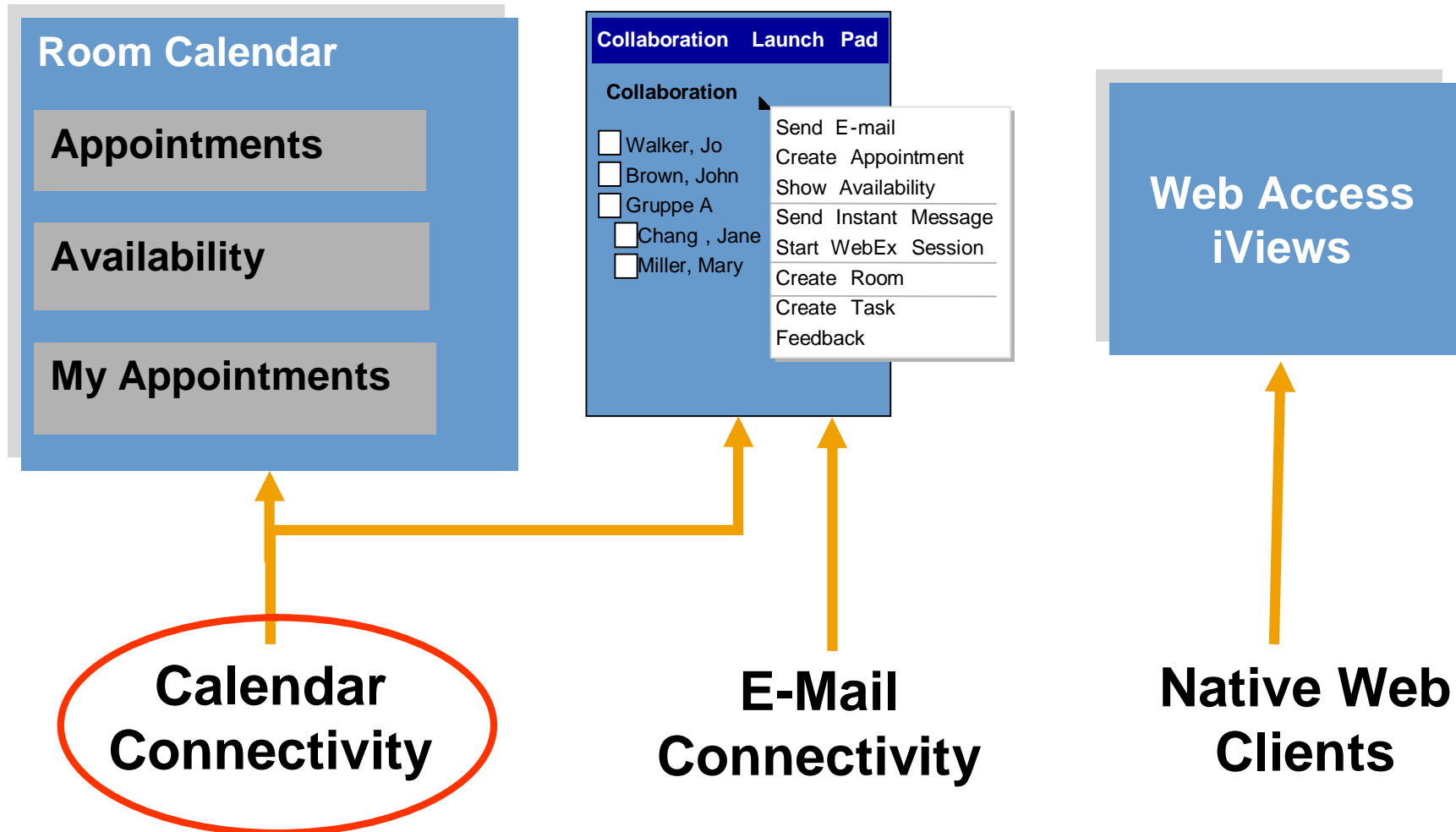
**Configuring Groupware Integration (Calendar)**

Native Web Client Integration

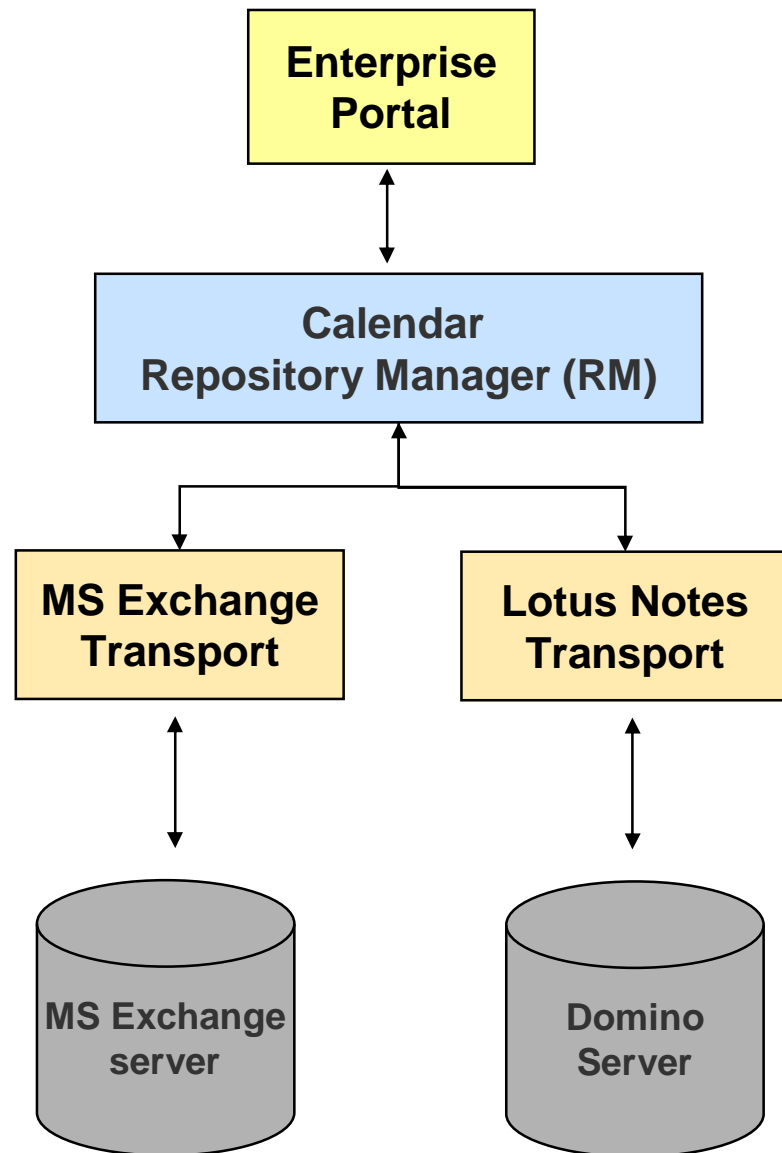
Multiple Groupware Servers and Domains

Summary

# Groupware Configuration Tasks



# Calendar Integration—Configuration

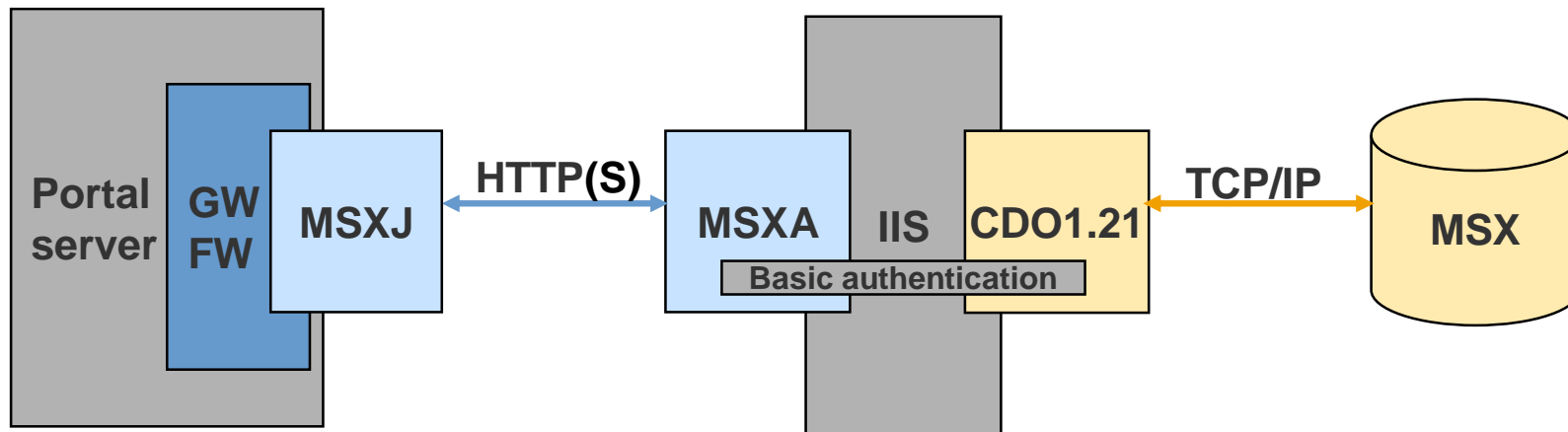


## Process Flow:

1. Install Transport
2. Create Transport in Portal
3. Configure Calendar RM
4. Create System
5. Map Portal User

# Install Transport: MS Exchange

1. Install Transport
2. Create Transport in Portal
3. Configure Calendar RM
4. Create System
5. Map Portal User



## Legend:

- GW FW = Groupware Framework
- MSXJ = Java component implementing Groupware API
- MSXA = ActiveX component based on CDO1.21

# Install Transport: Installing MSXA Components

## 1. Install Transport

2. Create Transport in Portal
3. Configure Calendar RM
4. Create System
5. Map Portal User

- 1. Locate the MSX-A components shipped with the Exchange transport:**  
`<irj>\root\portalapps\com.sap.netweaver.coll.appl.gw\external\exchange`
- 2. Locate an IIS that is in the same domain as the Exchange server or in a trusting domain**
- 3. Create a folder on the IIS, for example, c:\SAPExchangeTransport**
- 4. Copy the MSX-A components to the above folder**
- 5. Register the DLL by using the command regsrvr32 in the command prompt**
- 6. Create a new IIS Website if you are using IIS 6.0 or above, else create a virtual directory**

# Install Transport: Testing MSXA Components

## 1. Install Transport

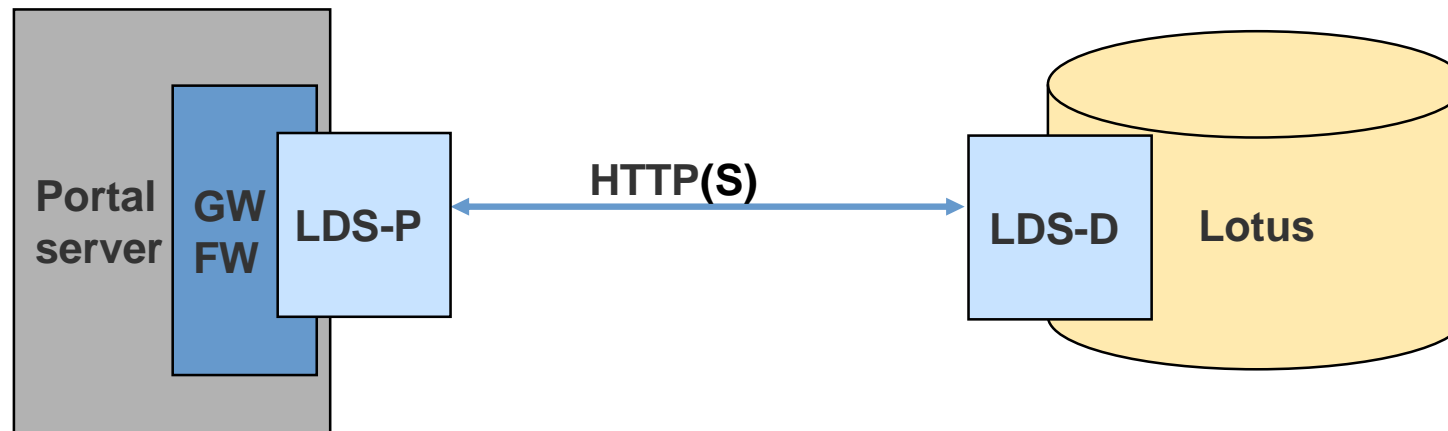
2. Create Transport in Portal
3. Configure Calendar RM
4. Create System
5. Map Portal User

1. **Locate SAPPXchTest.exe which is shipped with the Exchange transport.**
2. **Copy the executable file to the machine on which the MSX-A component has been deployed**
3. **Test the CDO version.**
4. **Test data retrieval**
5. **Click on Save Results.**
6. **Open the log file.**



# Install Transport: Lotus Domino

1. Install Transport
2. Create Transport in Portal
3. Configure Calendar RM
4. Create System
5. Map Portal User



## Legend:

- GW FW – Groupware Framework
- LDS-P – Java component implementing GW API which runs on the portal
- LDS-D –Servlet deployed on the Lotus Domino Server

# Install Transport: Installing LDS-D Components

## 1. Install Transport

2. Create Transport in Portal
3. Configure Calendar RM
4. Create System
5. Map Portal User

- 1. Locate the LDS-D component shipped with Lotus transport.**
- 2. Copy the jar file to the Lotus servlet folder as defined in the Lotus server configuration.**
- 3. Using the Lotus Administrator client, update the Domino server document.**

# Create Transport in Portal

1. Install Transport
- 2. Create Transport in Portal**
3. Configure Calendar RM
4. Create System
5. Map Portal User

### New "Lotus Transport"

Name *	LotusTransport
System alias name *	Lotus
HTTP server *	undefined
Port *	undefined
Protocol * +	http ▾
Use TicketVerifier +	<input type="checkbox"/>
Use LtpaToken +	<input type="checkbox"/>
LtpaToken Expiration (minutes) +	30
Virtual Directory *	servlet

OK Apply Cancel [Hide Advanced Options](#) (+ denotes advanced options)

### New "Exchange Transport"

Name *	ExchangeTransport
System alias *	Exchange
User logon domain *	undefined
Exchange server *	undefined
Pattern *	= ▾
Default exchange server *	undefined
IIS server *	undefined
Port *	undefined
Virtual directory	comm
Standby IIS server *	undefined
Protocol *	http ▾
Use Kerberos authentication	<input type="checkbox"/>


OK Apply Cancel


# Configure Calendar Repository Manager

1. Install Transport
2. Create Transport in Portal
3. **Configure Calendar RM**
4. Create System
5. Map Portal User

**Calendar Repository** Creating and deleting configuration objects requires that you restart the servlet engine.

The calendar repository manager provides read and write access to meetings and appointments on different groupware servers



	Name	Description	Active	Transports	Default transport
<input type="checkbox"/>	<a href="#">Calendar</a>	Repository manager for managing meetings, appointments	<input checked="" type="checkbox"/>	ExchangeTransport	

 Page 1 / 1

[New](#) [Duplicate](#) [Edit](#) [View](#) [Delete](#)


## View "Calendar"

Description

Active   

Transports

name
<a href="#">ExchangeTransport</a>

 Page 1 / 1

Default transport

[Edit](#) [Close](#) [Hide Advanced Options](#) (+ denotes advanced options)

# Create a System

1. Install Transport
2. Create Transport in Portal
3. Configure Calendar RM
- 4. Create System**
5. Map Portal User

**A system allows you to maintain the credentials for a transport.**

**Step 1:** Navigate to *System Administration* → *System Configuration* → *System Landscape* → *Portal Content* → *Content Provided By SAP*.

**Step 2:** Right click on *Collaboration* and then choose *New From PAR* → *System*.

**Step 3:** Select *com.sap.netweaver.col.appl.gw* and then choose *Next*.

**Step 4:** Select a server (for example, *Microsoft\_Exchange\_Server*) and then choose *Next*.

**Step 5:** Enter the system name and ID (for example, Exchange or Lotus), and then choose *Next* and then *Finish*.

**Step 6:** Call up *System Aliases* for this system using the *Edit* dropdown box in the top right-hand side of the iView, and create a new alias according to the system you are using (Exchange or Lotus) and what you have defined in the transport configuration.

# Map Portal User

1. Install Transport
2. Create Transport in Portal
3. Configure Calendar RM
4. Create System
5. **Map Portal User**

The users can map their portal user to their groupware user via the Personalize function within the portal.

Please note: User mapping is required only for MS Exchange running on MS Windows OS versions prior to MS Windows Server 2003

**Step 1:** In the SAP NetWeaver Portal, choose *Personalize* → *User Mapping* and select the system alias, such as MS Exchange.

**Step 2:** Specify the groupware user, password and mail server name.

Groupware Framework - Overview

Configuring Groupware Integration (E-Mail)

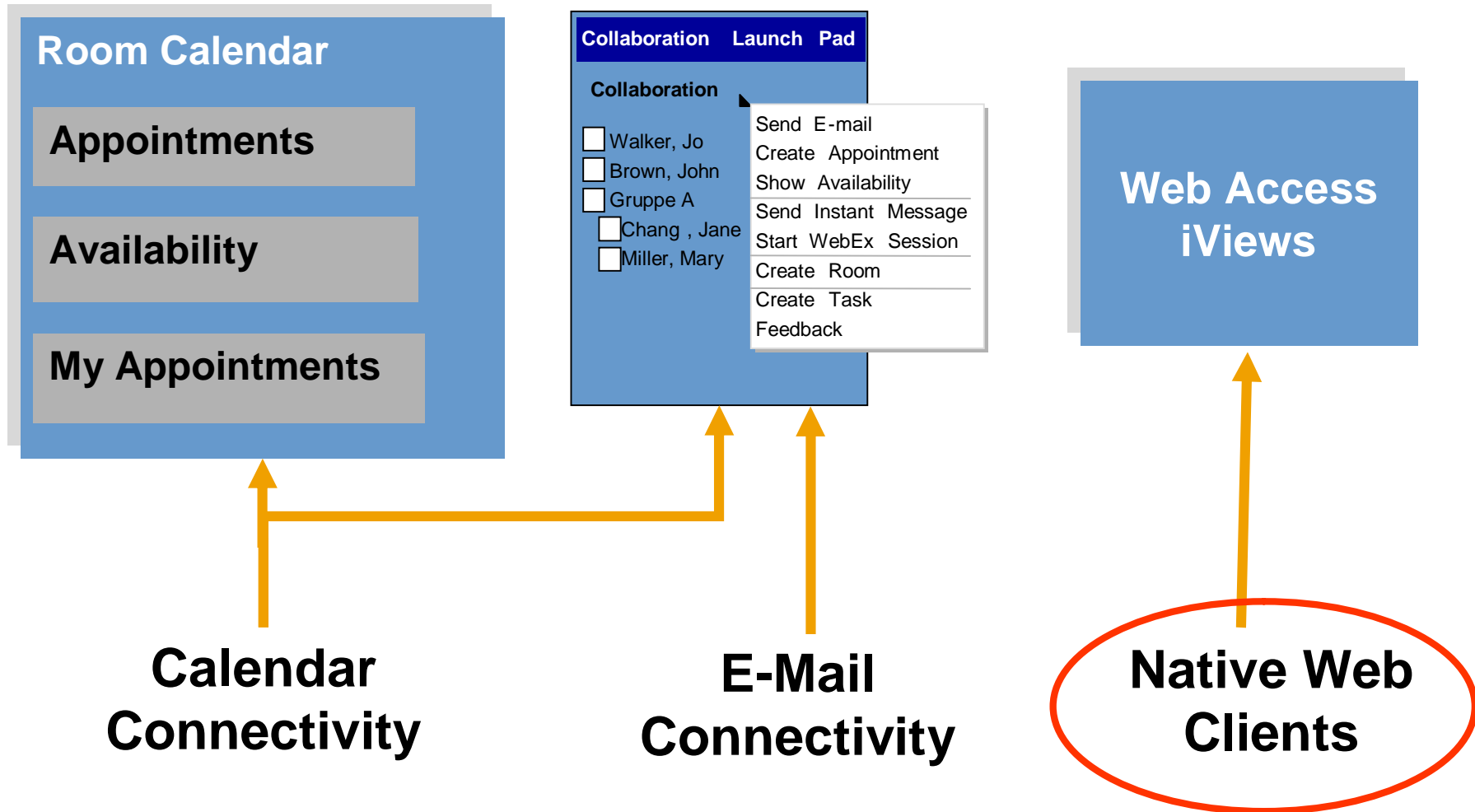
Configuring Groupware Integration (Calendar)

**Native Web Client Integration**

Multiple Groupware Servers and Domains

Summary

# Groupware Configuration Tasks





# Native Web Client Access

## Enterprise Portal

Inbox

Tasks

Calendar

Contacts

Public  
Folders

← **Microsoft  
Outlook Web  
Access**

**Lotus  
iNotes** →

## Enterprise Portal

Inbox

Notebook

Calendar

To Do

Groupware Framework - Overview

Configuring Groupware Integration (E-Mail)

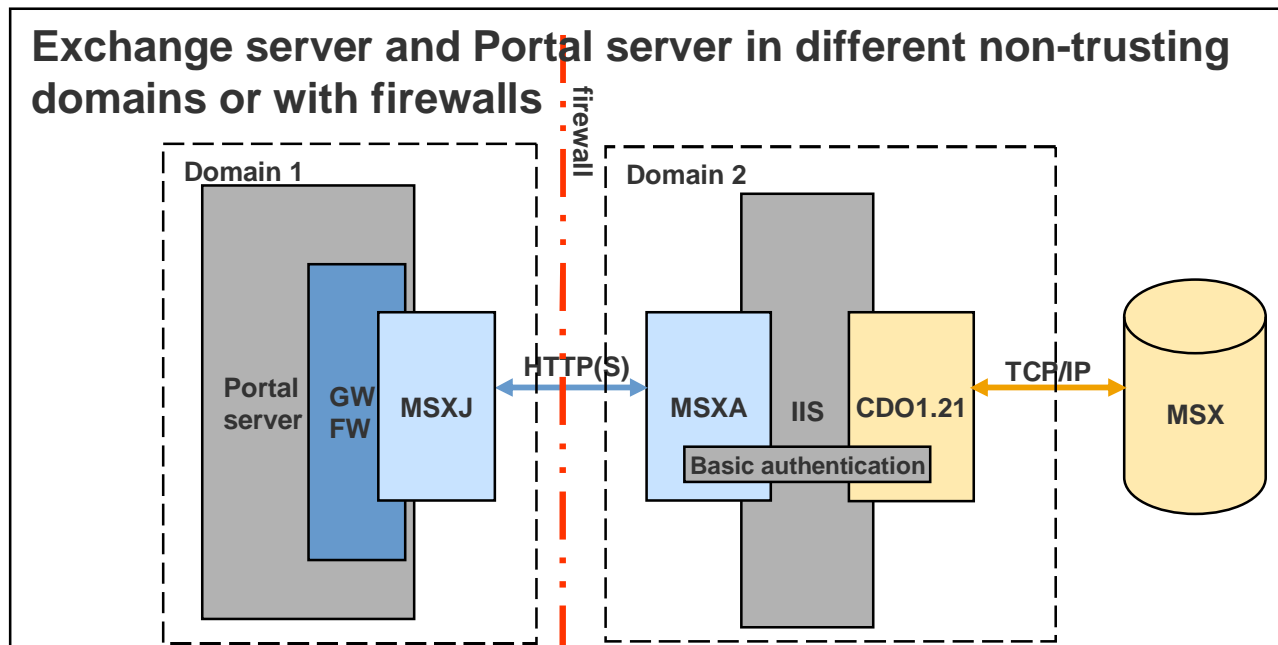
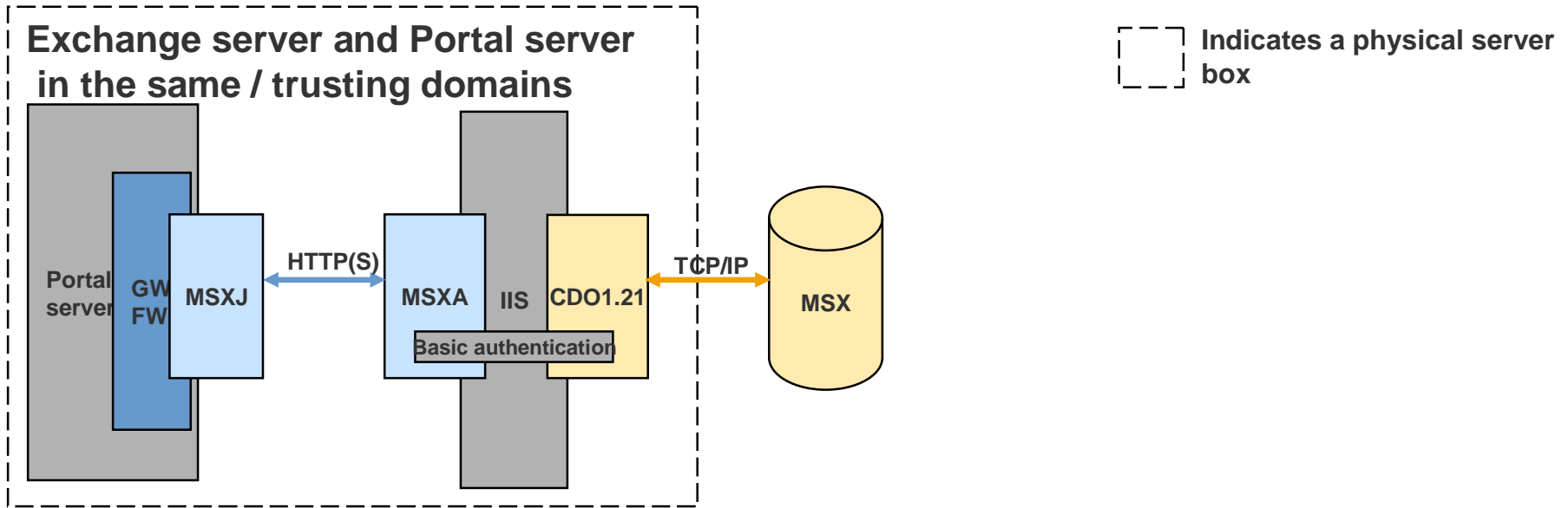
Configuring Groupware Integration (Calendar)

Native Web Client Integration

**Multiple Groupware Servers and Domains**

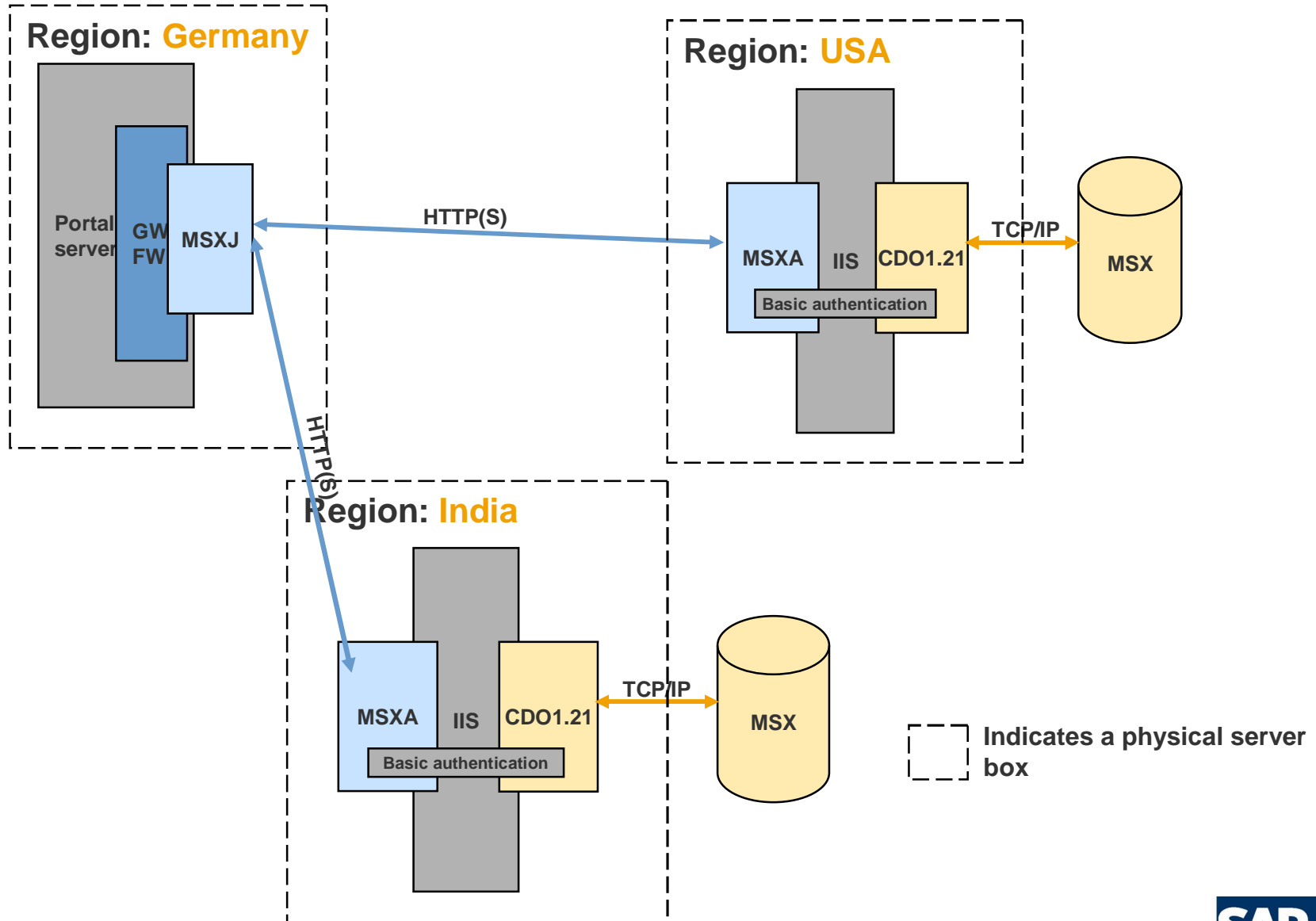
Summary

# Multiple Domain Considerations for Exchange

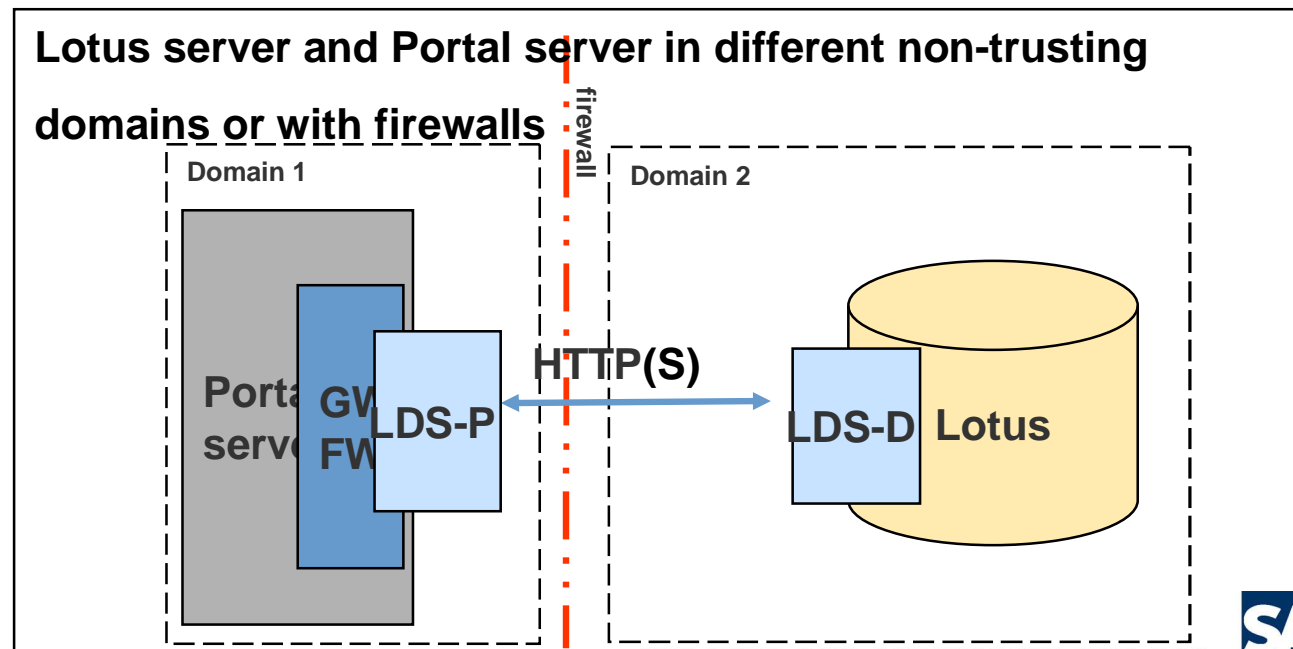
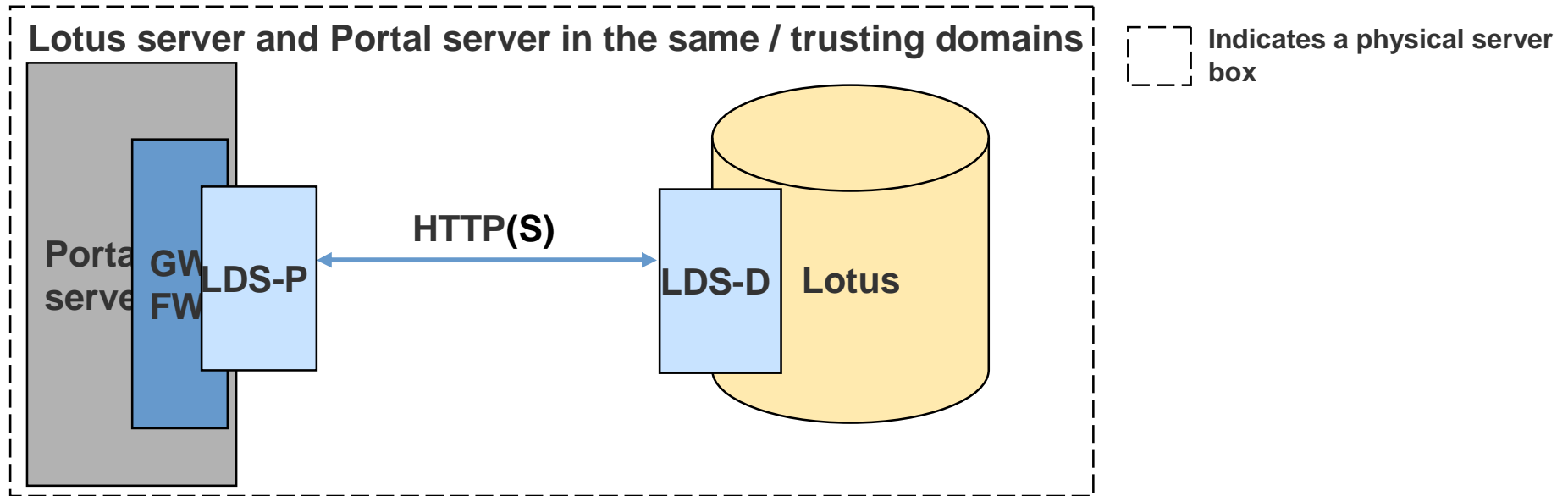


# Multiple Exchange Servers

## Distributed Exchange server

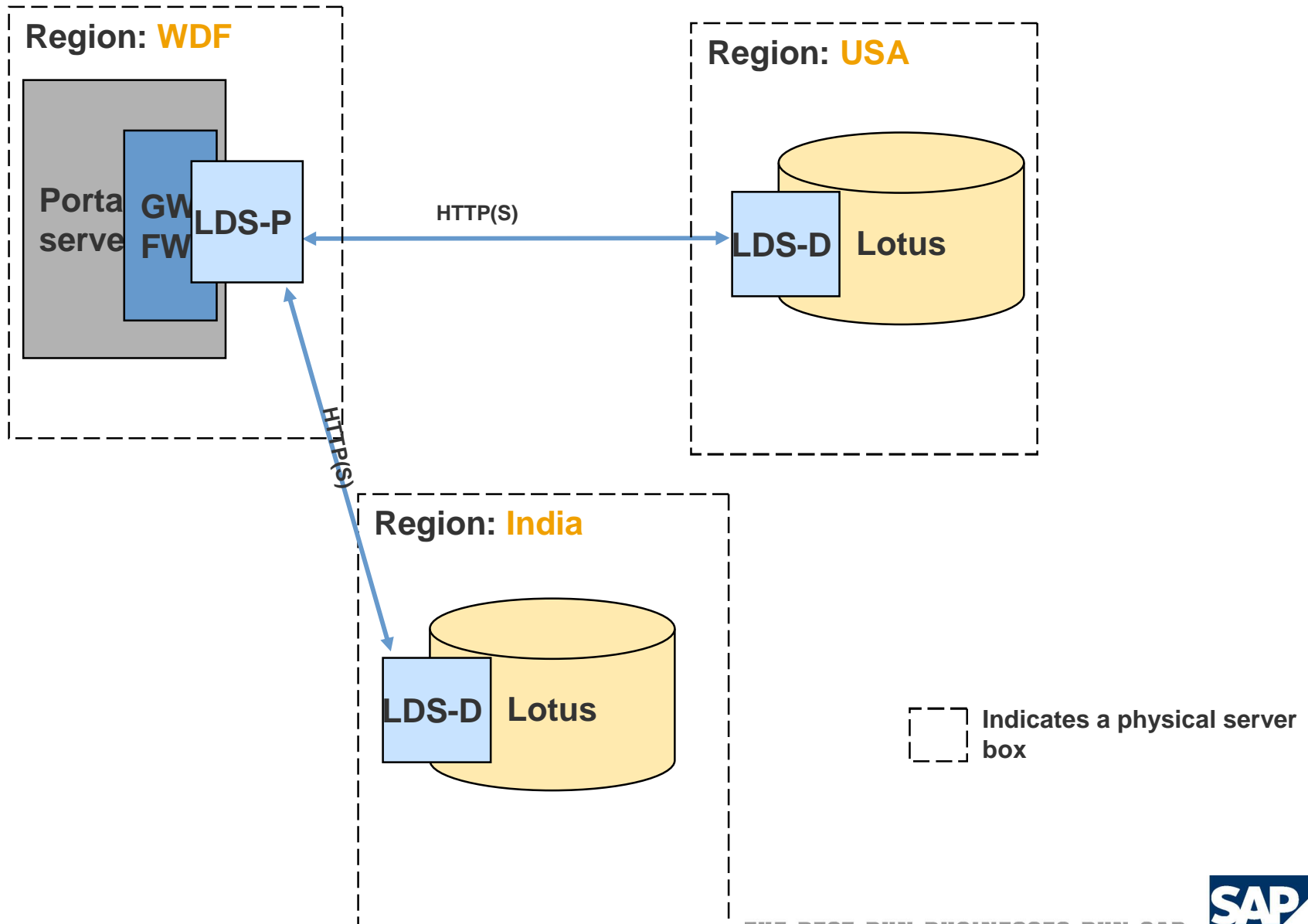


# Multiple Domain Considerations for Lotus



# Multiple Lotus Servers

## Distributed Lotus server



Groupware Framework - Overview

Configuring Groupware Integration (E-Mail)

Configuring Groupware Integration (Calendar)

Native Web Client Integration

Multiple Groupware Servers and Domains

**Summary**

**You should now be able to:**

- **Understand the capabilities of the Groupware framework**
- **Understand the architecture of the Groupware framework**
- **Identify the different configurations available**
- **Understand how to configure e-mail integration**
- **Understand how to configure calendar integration**
- **Understand how to integrate Microsoft Web Access and Lotus iNotes**



## Further Information

### → Public Web

- **NetWeaver Developer's Guide:**  
<http://www.sdn.sap.com/irj/sdn/devguide2004s> → Enabling User Collaboration
- **Commented Coding Samples:**  
[http://help.sap.com/saphelp\\_nw04s/helpdata/en/42/b6b64182323123e1000000a1553f7/frameset.htm](http://help.sap.com/saphelp_nw04s/helpdata/en/42/b6b64182323123e1000000a1553f7/frameset.htm)
- **How-to Paper: Integration of MS Outlook Web Access 2003:**  
<https://www.sdn.sap.com/irj/servlet/prt/portal/prtroot/docs/library/uuid/92f5bcdd-0701-0010-188f-93cc435a6e05>

### → SAP Service Marketplace

- **Role-specific Learning Maps (available for purchase):**  
<http://service.sap.com/rkt-netweaver> → Available OKPs for SAP NetWeaver

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