

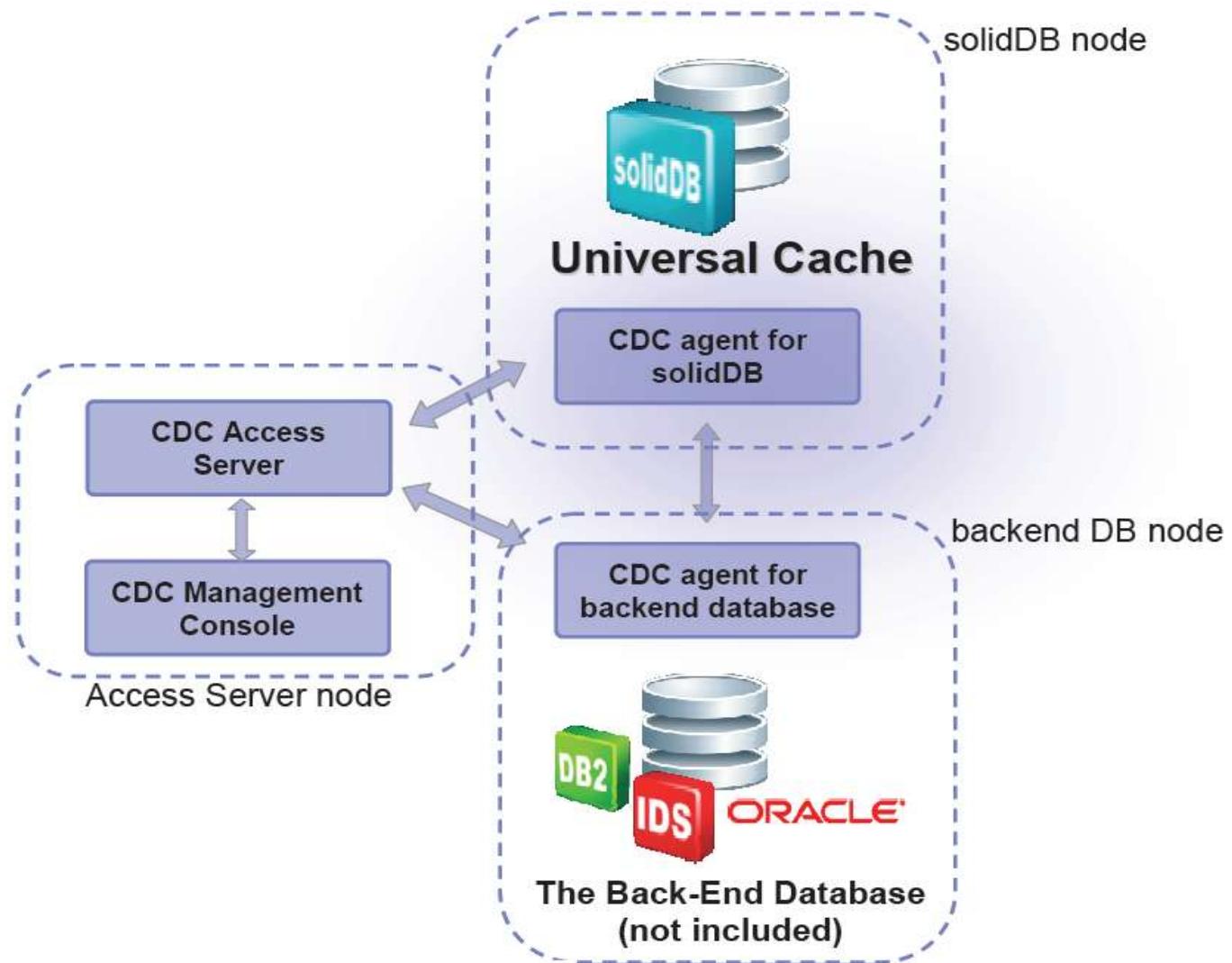
SolidDB Universal Cache a Informix Dynamic Server

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Community of Practice for
CEEMEA

Agenda

- Architektura SolidDB Universal Cache
- Příprava prostředí IDS a SolidDB
- Instalace a konfigurace CDC pro Informix a SolidDB
- Instalace CDC Access Serveru a Management Console
- Vytvoření DataStore pro SolidDB a Informix
- Příklady konfigurace replikací

Architektura SolidDB Universal Cache



Příprava prostředí IDS

- Databáze musí být žurnálovaná
 - dbaccessdemo7 **-log**
- Nastavení proměnné prostředí
`ENABLE_FULL_ROW_LOGGING=1`
- Vytvoření systémové databáze pro CDC
 - dbaccess - \$INFORMIXDIR\etc\syscdcv1.sql

Příprava prostředí SolidDB

- Instalace SolidDB do adresáře <soliddb>
- Vytvoření adresáře, kde bude vytvořena SolidDB databáze <db_dir>
 - Např.: `e:\solidb`
 - `cp <soliddb>\solidDB6.3\eval_kit\standalone\solideval.lic <db_dir>`
 - `V <db_dir>` vytvořit konfigurační soubor `solid.ini`

```
[com]
    Listen = tcp 1315
[LogReader]
    LogReaderEnabled=yes
```
- Inicializace a start SolidDB
 - `solid -U dba -P dba -C dba`

Instalace CDC

- SoliDB CDC

- setup-x86-solid.exe

- Instalační adresář: c:\Program Files\DataMirror\CDC for solidDB

- Informix CDC

- setup-x86-informix.exe

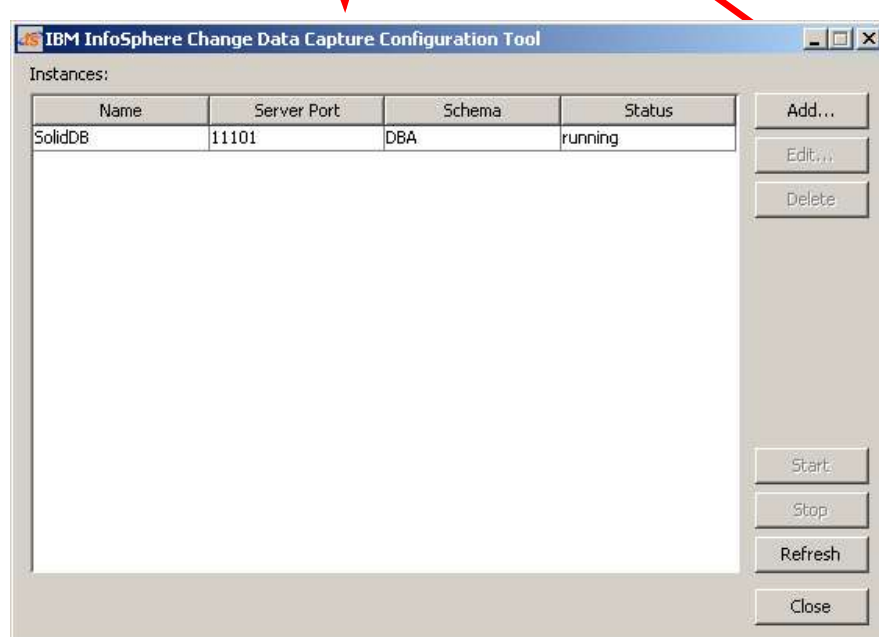
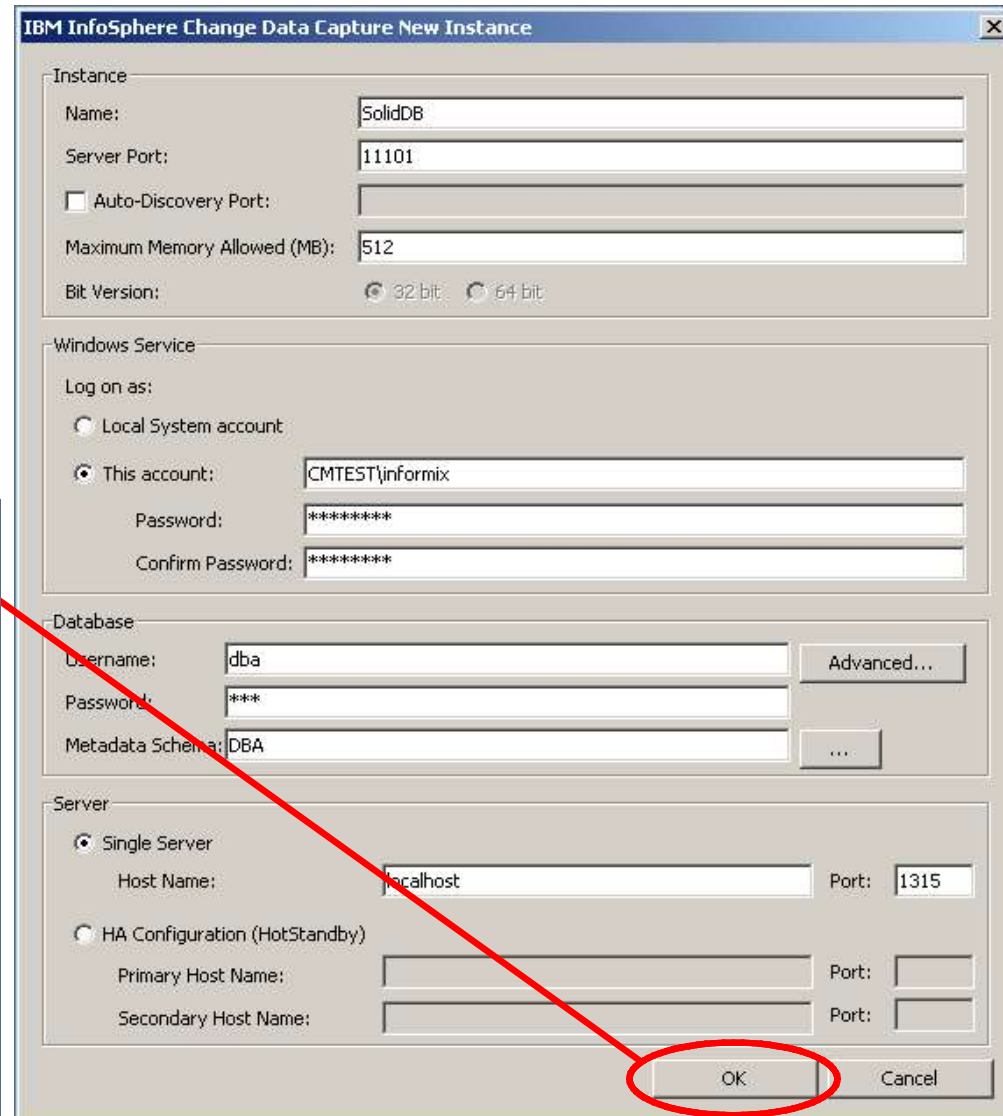
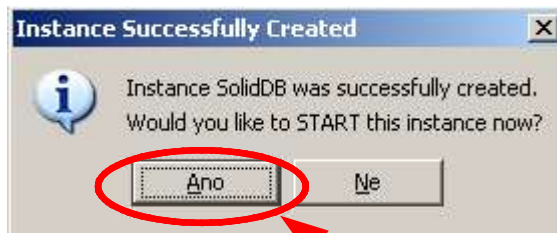
- Instalační adresář: c:\Program Files\DataMirror\CDC for Informix

- V obou případech zatím po instalaci nespustovat

- Odškrtnout 'Launch Configuration Tool'

Konfigurace CDC pro SolidDB

Start -> Programs ->
 IBM InfoSphere CDC for SolidDB ->
 Configure IBM InfoSphere CDC



Konfigurace CDC pro Informix

Start -> Programs ->
 IBM InfoSphere CDC for Informix ->
 Configure IBM InfoSphere CDC

IBM InfoSphere Change Data Capture New Instance

Instance

Name: Informix

Server Port: 10201

Auto-Discovery Port:

Maximum Memory Allowed (MB): 512

Bit Version: 32 bit 64 bit

Windows Service

Log on as:

Local System account

This account: CMTEST\informix

Password: *****

Confirm Password: *****

Database

Informix Server: ol_ifmx **Advanced...**

Host: 192.168.1.200

Name: stores_demo

Port: 9088

Username: informix

Password: *****

Metadata Schema: informix

OK Cancel

Database Advanced Options

Extra JDBC parameters:

Parameter	Value
INFORMIXSERVER	ol_ifmx

Add...
 Modify...
 Delete

OK Cancel

Instance Successfully Created

Instance Informix was successfully created.
 Would you like to START this instance now?

Yes No

IBM InfoSphere Change Data Capture Configuration Tool

Instances:

Name	Server Port	Database	Schema	Status
Informix	10201	stores_demo	informix	running

Add...
 Edit...
 Delete

Refresh

Authorization Code

Code: SOLIDDBCACHE Enabled

Apply Close

Instalace CDC Access Serveru a Management Console

- CDC Access Server

- dmaccess-setup.exe

- Instalační adresář: C:\ProgramFiles\DataMirror\CDC Access Control

- Port Number: 10101

- Username: Admin

- Password: password

- CDC Management Console

- dmclient-setup.exe

- Instalační adresář: C:\ProgramFiles\DataMirror\CDC Management Console

Startování CDC Management Console

Start -> Programs -> IBM InfoSphere CDC Management Console -> Management Console



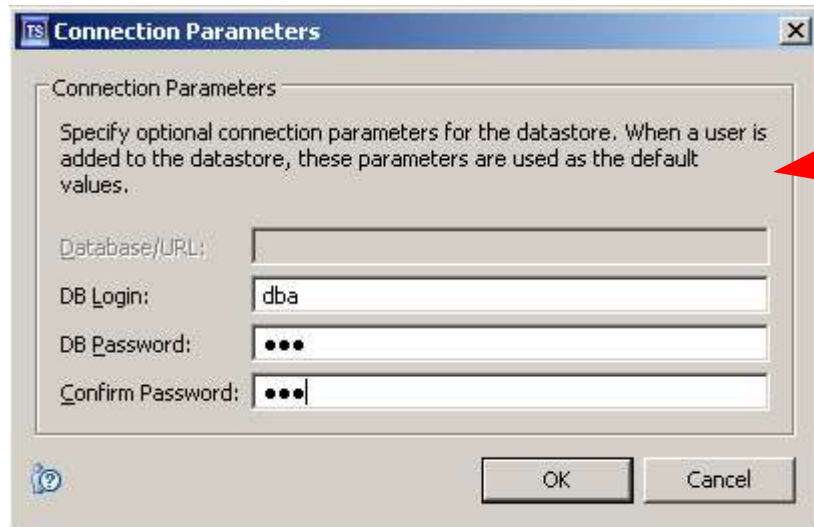
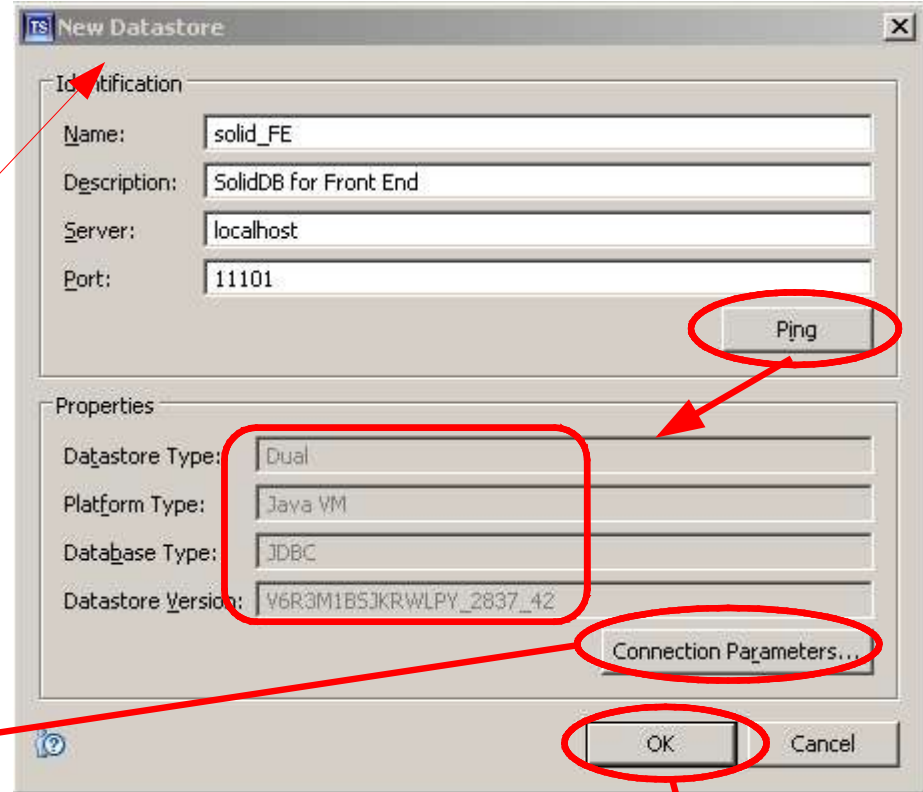
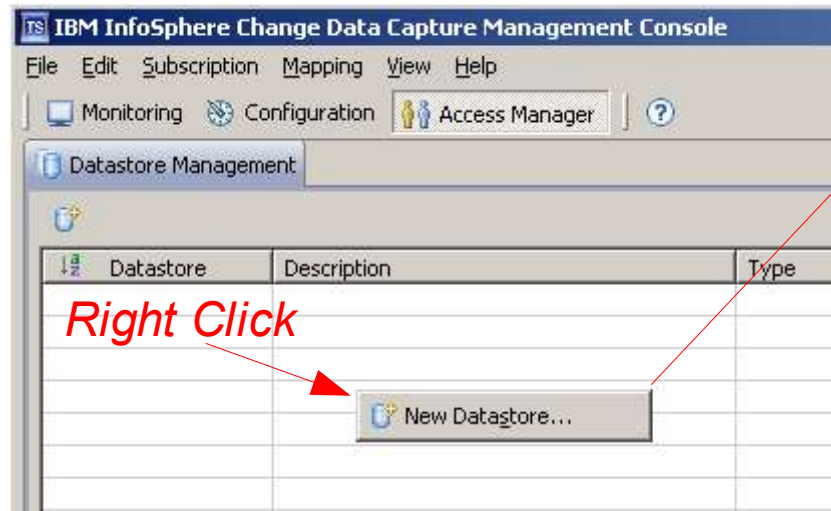
The screenshot shows the 'Management Console' window for IBM InfoSphere Change Data Capture 6.3. The window has a blue header with the IBM logo and the title 'Management Console'. Below the header, the text 'IBM InfoSphere Change Data Capture 6.3' is displayed. There are four input fields: 'User Name' with 'admin', 'Password' with masked characters, 'Server Name' with a dropdown menu showing 'localhost', and 'Port Number' with '10101'. At the bottom right, there are 'Login' and 'Cancel' buttons.



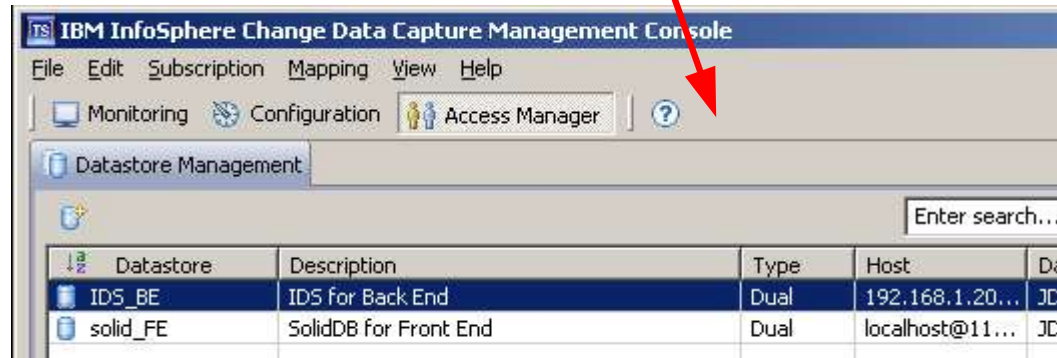
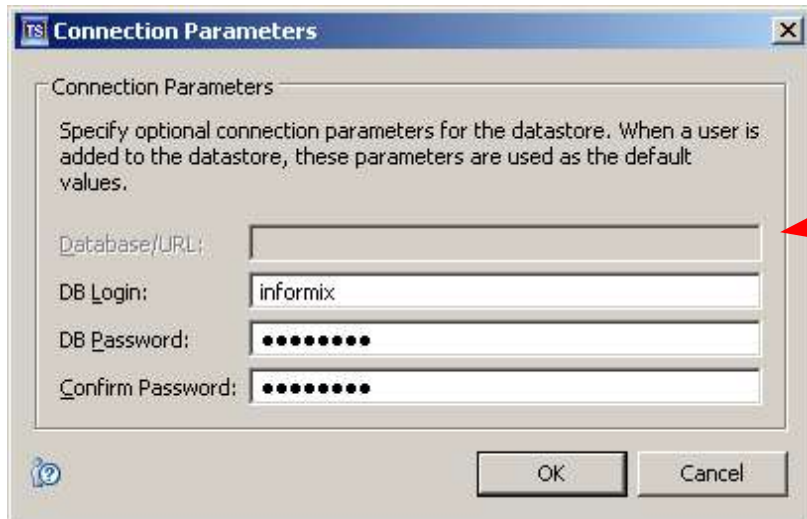
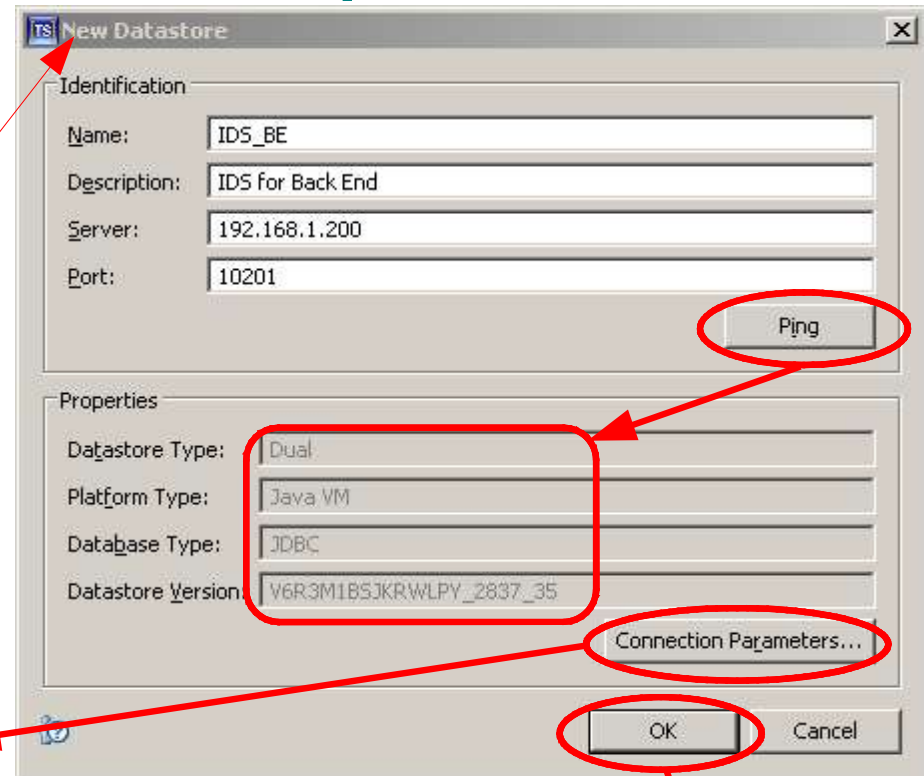
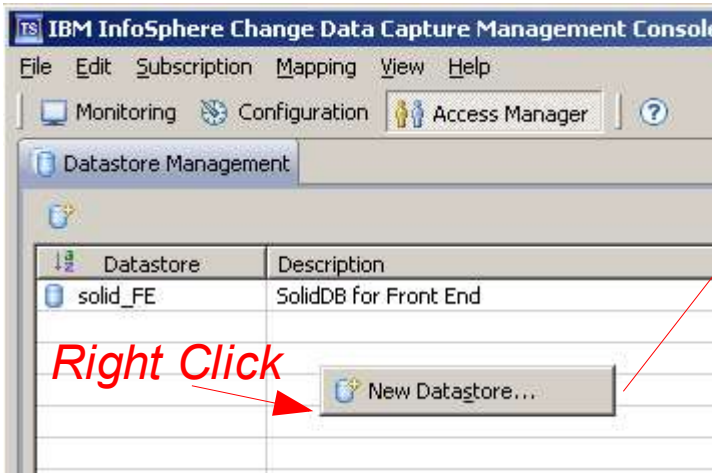
The screenshot shows a 'Change Password - Admin' dialog box. It contains a message: 'Your password fails the policy settings for password complexity and must be changed.' Below the message are three input fields: 'Current Password', 'New Password', and 'Confirm Password', all with masked characters. At the bottom right, there are 'OK' and 'Cancel' buttons.

Current Password: *password*
 New Password: *solid123*
 Confirm Password: *solid123*

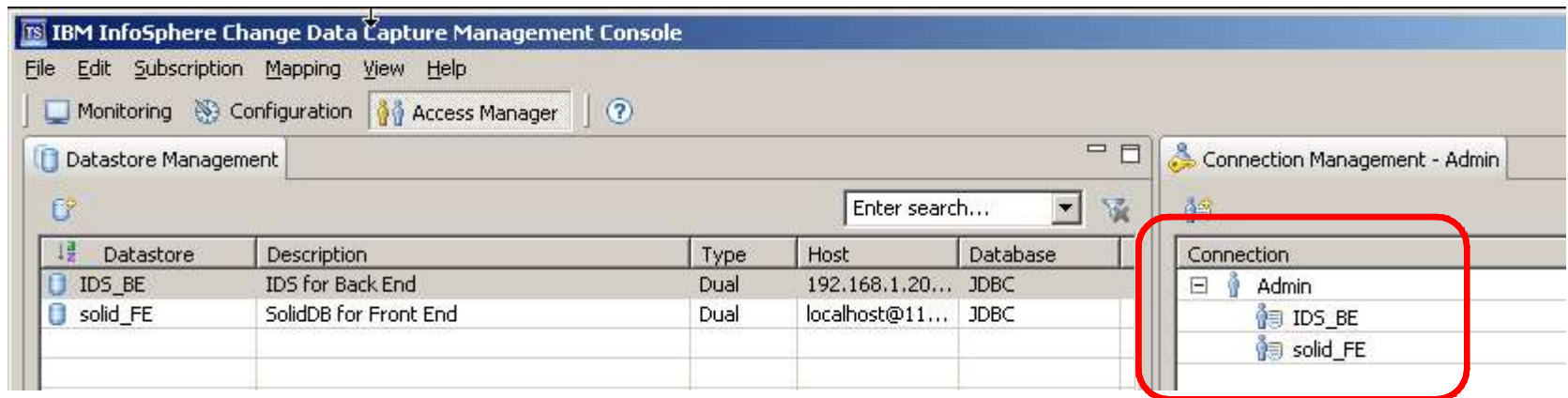
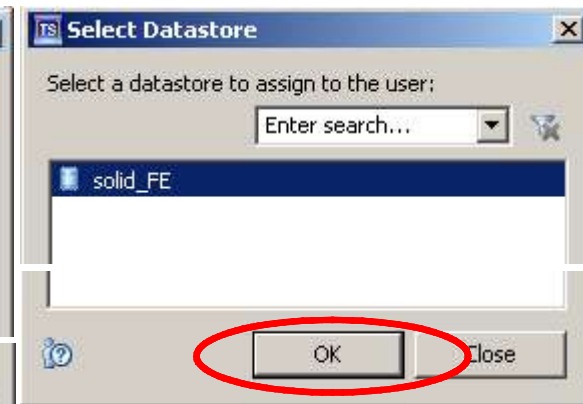
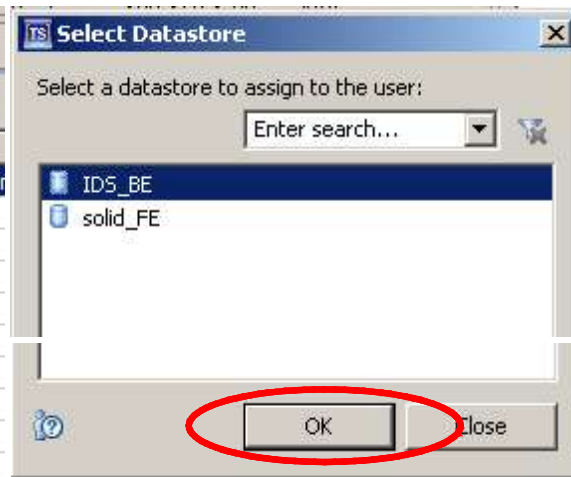
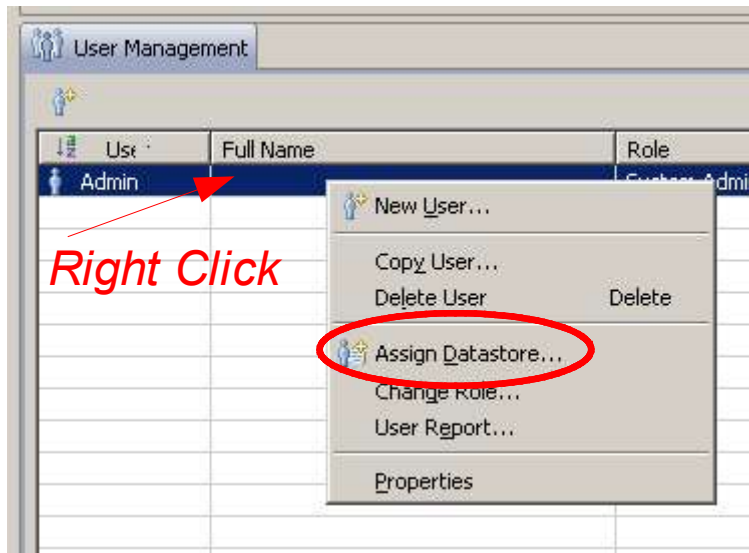
Vytvoření DataStore pro SolidDB



Vytvoření DataStore pro Informix



Přiřazení DataStores uživateli „admin“

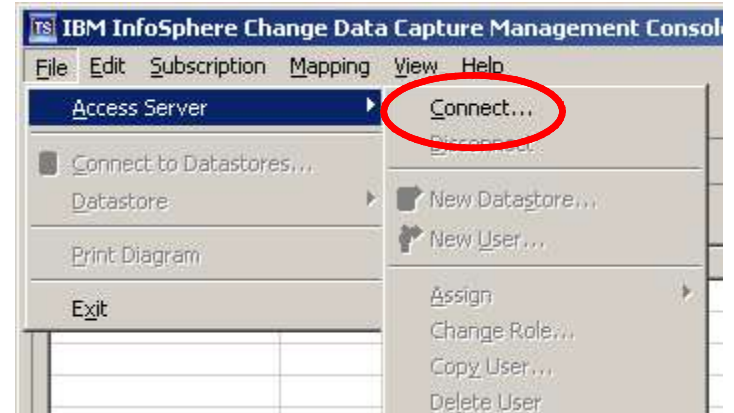


Připojení Access Serveru k DS

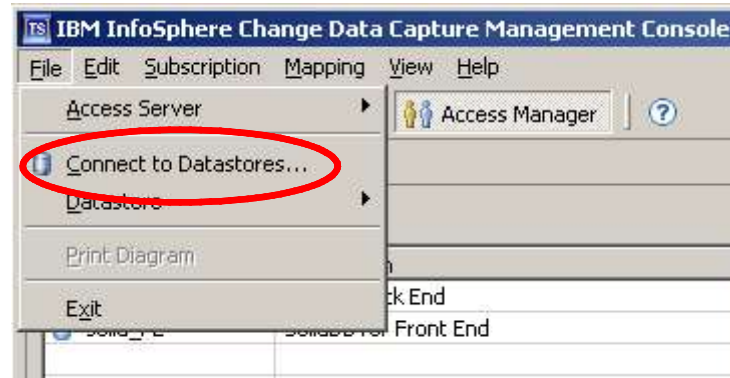
1)



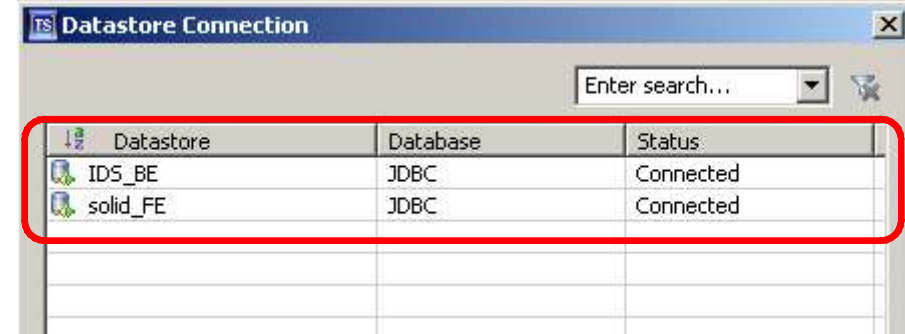
2)



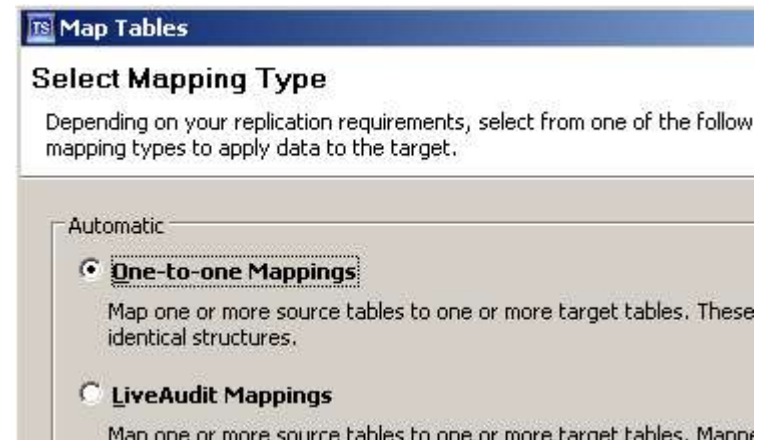
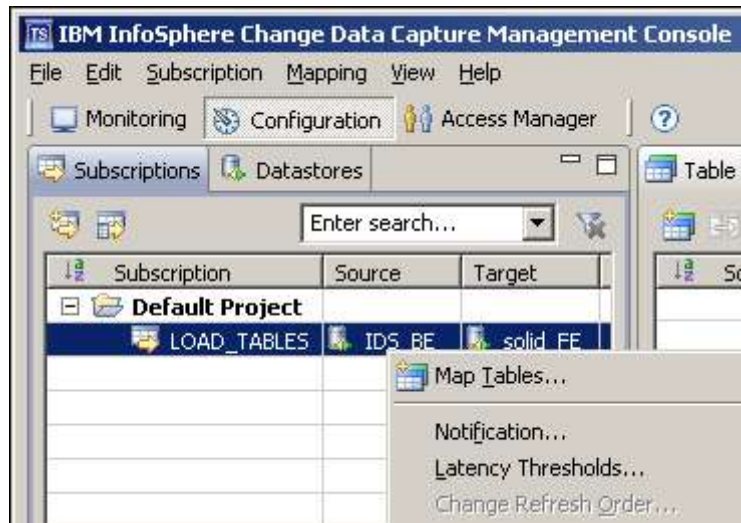
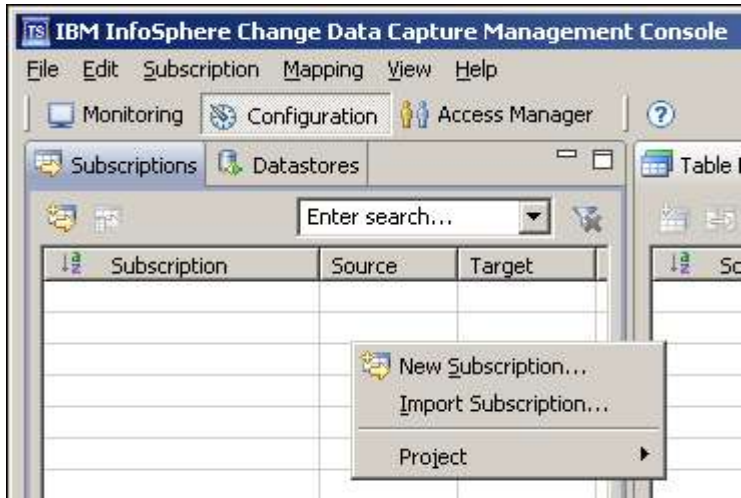
3)



4)



Replikace struktur a dat z BE do FE 1/5



Replikace struktur a dat z BE do FE 2/5

Map Tables

Select Source Tables

Select one or more source tables to map to target tables.

Source Tables:

Table	Replicate
informix	<input checked="" type="checkbox"/>
call_type	<input checked="" type="checkbox"/>
catalog	<input type="checkbox"/>
cust_calls	<input checked="" type="checkbox"/>
customer	<input checked="" type="checkbox"/>
items	<input checked="" type="checkbox"/>
manufact	<input checked="" type="checkbox"/>
orders	<input checked="" type="checkbox"/>
state	<input checked="" type="checkbox"/>
stock	<input checked="" type="checkbox"/>
ts_auth	<input type="checkbox"/>
ts_bookmark	<input type="checkbox"/>
ts_confau	<input type="checkbox"/>

Map Tables

Select Existing or Create New Target Tables

Specify whether you want to map to existing target tables or map to new

Map to existing target tables
Map source tables to existing target tables.


Create new target tables
Map source tables to new target tables. Target tables are created du

Replikace struktur a dat z BE do FE 3/5

Map Tables

Select Schema for New Target Tables
Specify the schema for the new target tables.


Specify a target owner for each source owner:

Schema	Schema
 informix	Click to select a target owner...

Select Target

Select a target schema.

Schema:

 DBA

Map Tables

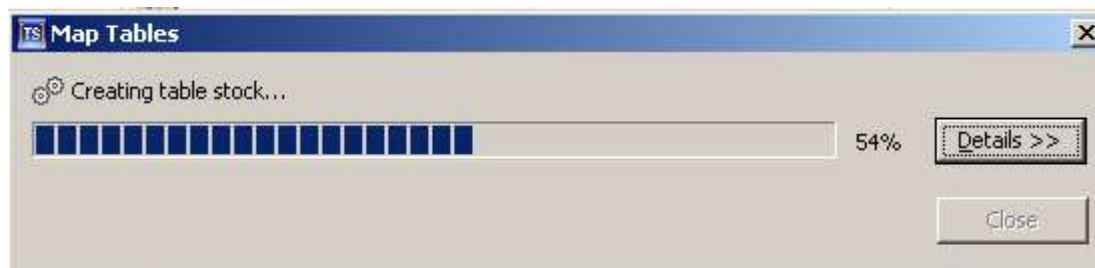
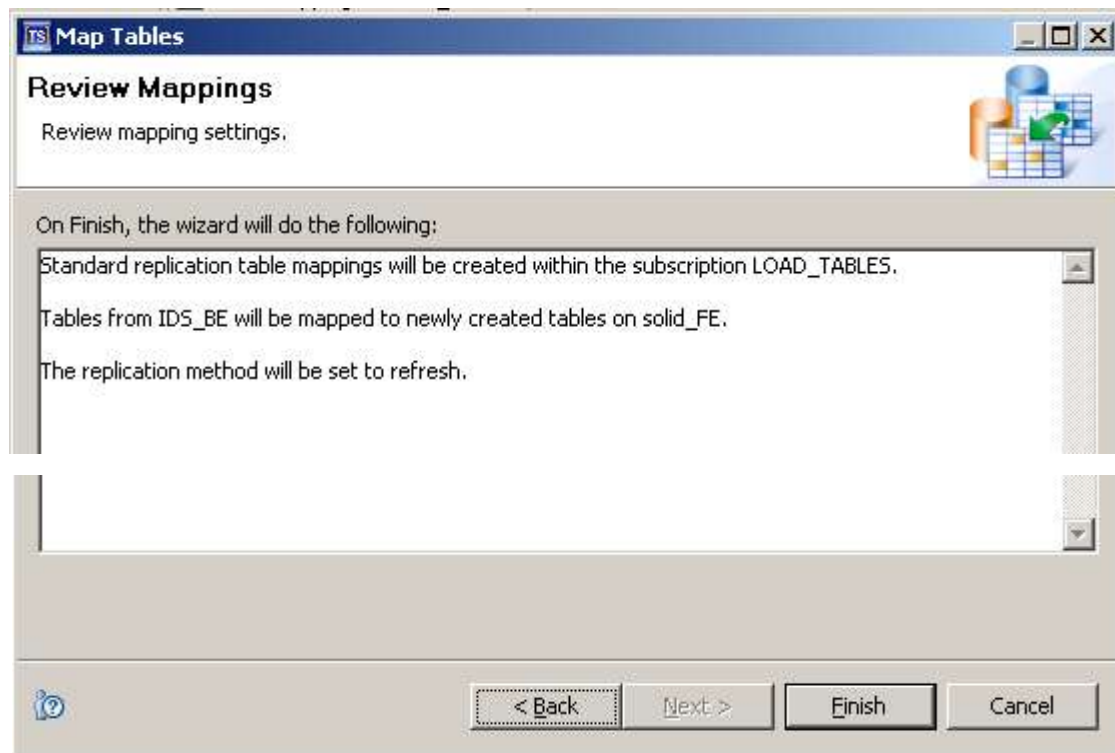
Name Target Tables
For each of the new target tables, provide a name that relates to the tables.

Specify how the new target table names relate to their corresponding source table names:

- Identical to the source table names
- Source table names with prefixes and/or suffixes

Prefix:

Replikace struktur a dat z BE do FE 4/5



Replikace struktur a dat z BE do FE 5/5

IBM InfoSphere Change Data Capture Management Console

File Edit Subscription Mapping View Help

Monitoring Configuration Access Manager

Subscriptions Databases

Enter search...

Subscription	Source	Target
Default Project		
LOAD_TABLES	IDS_BE	solid_FE

Map Tables...

Notification...

Latency Thresholds...

Change Refresh Order...

InfoSphere DataStage Properties...

Static SQL...

User Exits...

Copy Subscription...

Promote Subscription...

Import Subscription...

Export Subscription...

Delete Subscription Delete

Generate InfoSphere DataStage Job Definition...

Project ▶

Start Refresh...

Start Mirroring (Continuous)

Start Mirroring (Net Change)

End Replication ▶

Properties

Table Mappings - LOAD_TABLES

Enter search...

Source Table	Target Table	Mapping Type	Method	Status
informix.call_type	DBA.call_type	Standard	Refresh	Refresh
informix.cust_calls	DBA.cust_calls	Standard	Refresh	Refresh
	DBA.customer	Standard	Refresh	Refresh
	DBA.items	Standard	Refresh	Refresh
	DBA.manufact	Standard	Refresh	Refresh
	DBA.orders	Standard	Refresh	Refresh
	DBA.state	Standard	Refresh	Refresh
	DBA.stock	Standard	Refresh	Refresh

Ověření replikace

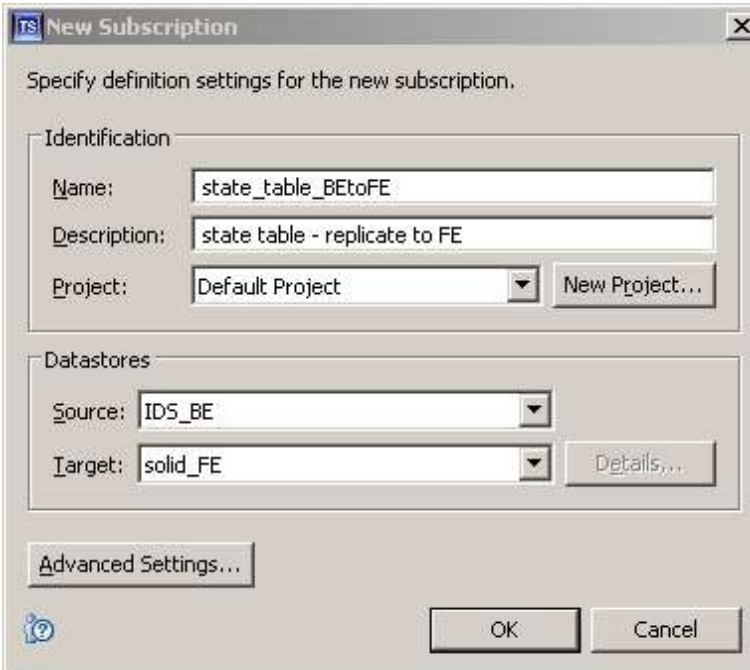
```
c:\ Příkazový řádek - ssql "tcp 1315" dba dba
e:\soliddb>ssql "tcp 1315" dba dba
IBM solidDB SQL Editor (teletype) v.06.30.0029
(c) Solid Information Technology Ltd. 1993, 2009
Connected to 'tcp 1315'.
Execute SQL statements terminated by a semicolon.
Exit by giving command: exit;

select count(*) from customer;
COUNT(*)
-----
          28
1 rows fetched.

select fname,lname from customer where customer_num=101;
FNAME          LNAME
-----          -----
Ludwig          Pauli
1 rows fetched.
```

Definice oboustranné replikace

Definice replikace ve směru: IDS -> SolidDB



New Subscription

Specify definition settings for the new subscription.

Identification

Name: state_table_BEtoFE

Description: state table - replicate to FE

Project: Default Project New Project...

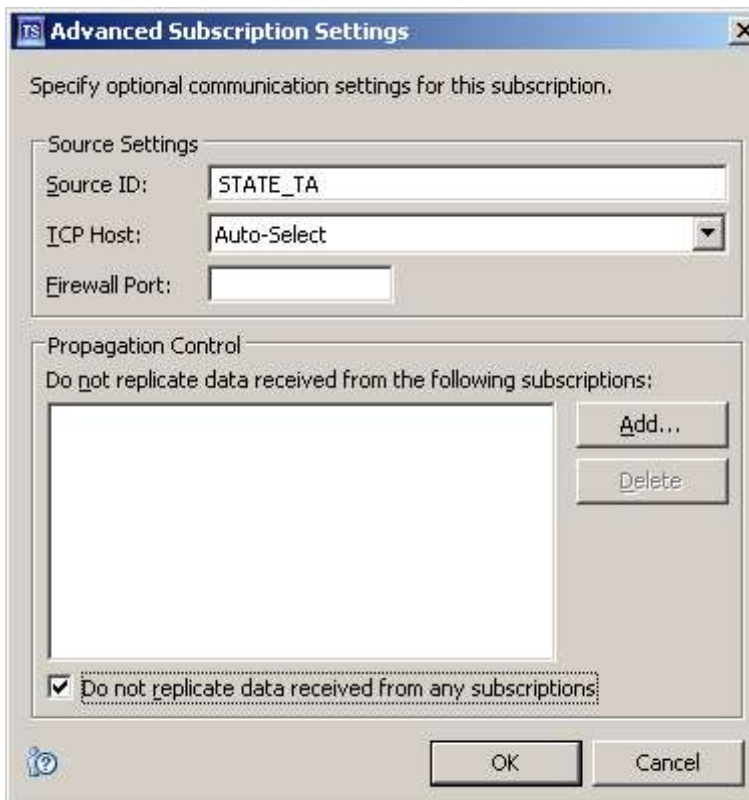
Datstores

Source: IDS_BE

Target: solid_FE Details...

Advanced Settings...

OK Cancel



Advanced Subscription Settings

Specify optional communication settings for this subscription.

Source Settings

Source ID: STATE_TA

TCP Host: Auto-Select

Firewall Port:

Propagation Control

Do not replicate data received from the following subscriptions:

Add...

Delete

Do not replicate data received from any subscriptions:

OK Cancel

Definice oboustranné replikace

Definice replikace ve směru: SolidDB -> IDS

TS New Subscription

Specify definition settings for the new subscription.

Identification

Name: state_table_FEtoBE

Description: state table replicate to BE

Project: Default Project

Datstores

Source: solid_FE

Target: IDS_BE

TS IBM InfoSphere Change Data Capture Management Console

File Edit Subscription Mapping View Help

Monitoring Configuration Access Manager ?

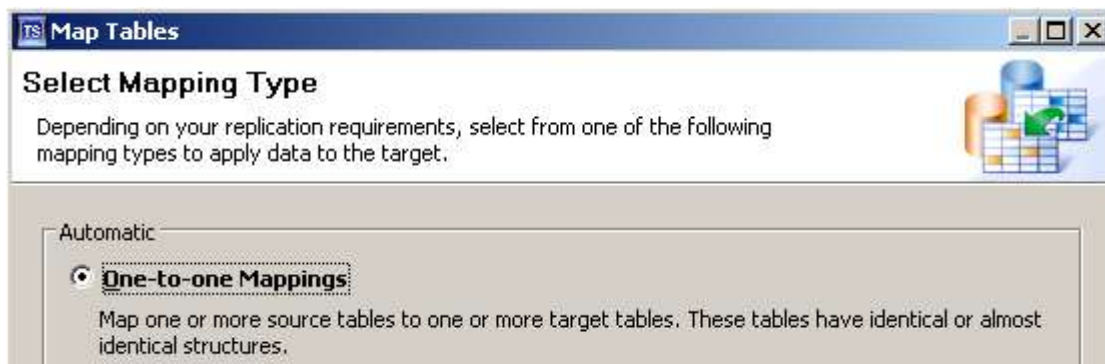
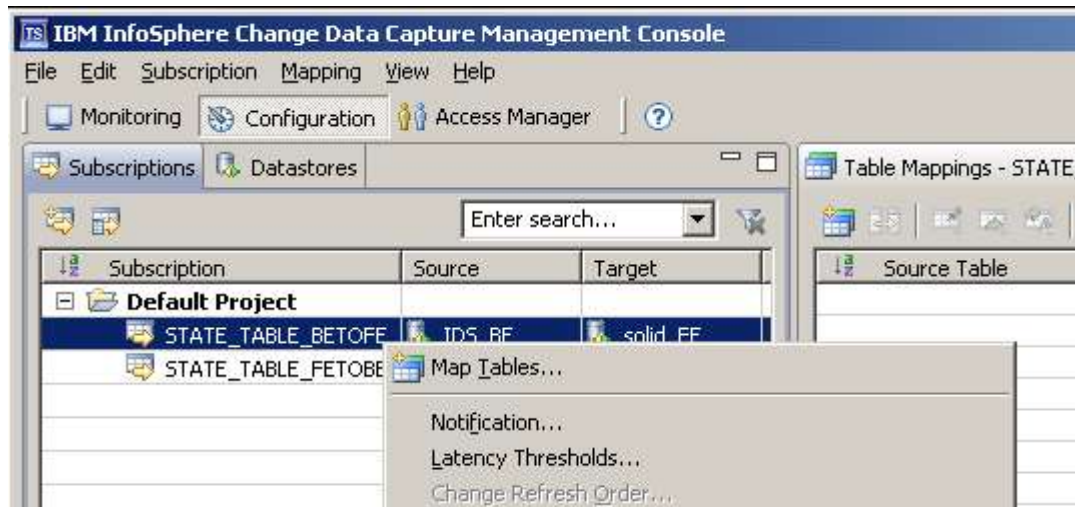
Subscriptions Datasources Table Mappings

Enter search...

Subscription	Source	Target
Default Project		
STATE_TABLE_BETOFE	IDS_BE	solid_FE
STATE_TABLE_FETOBE	solid_FE	IDS_BE

Source Table

Výběr repliky (BE->FE) a typu mapování



Mapování tabulky „state“ (BE -> FE)

Map Tables

Select Source Tables

Select one or more source tables to map to target tables.

Source Tables:

Table	Replicate
informix	<input checked="" type="checkbox"/>
call_type	<input type="checkbox"/>
catalog	<input type="checkbox"/>
cust_calls	<input type="checkbox"/>
customer	<input type="checkbox"/>
items	<input type="checkbox"/>
manufact	<input type="checkbox"/>
orders	<input type="checkbox"/>
state	<input checked="" type="checkbox"/>
stock	<input type="checkbox"/>

Map Tables

Select Existing or Create New Target Tables

Specify whether you want to map to existing target tables or ma

Map to existing target tables
Map source tables to existing target tables.

Map Tables

Map Source Tables to Existing Target Tables

Select the target table to map to the example source table that is di
relationship will be used to map the other selected source tables.

Source Table: informix.state

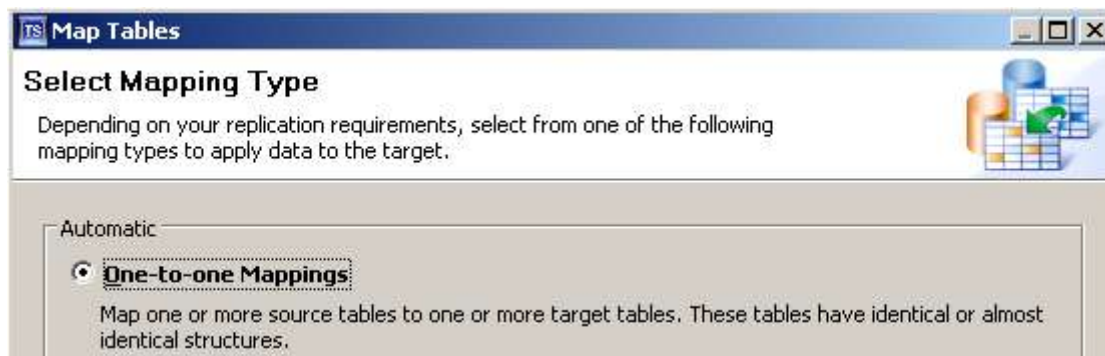
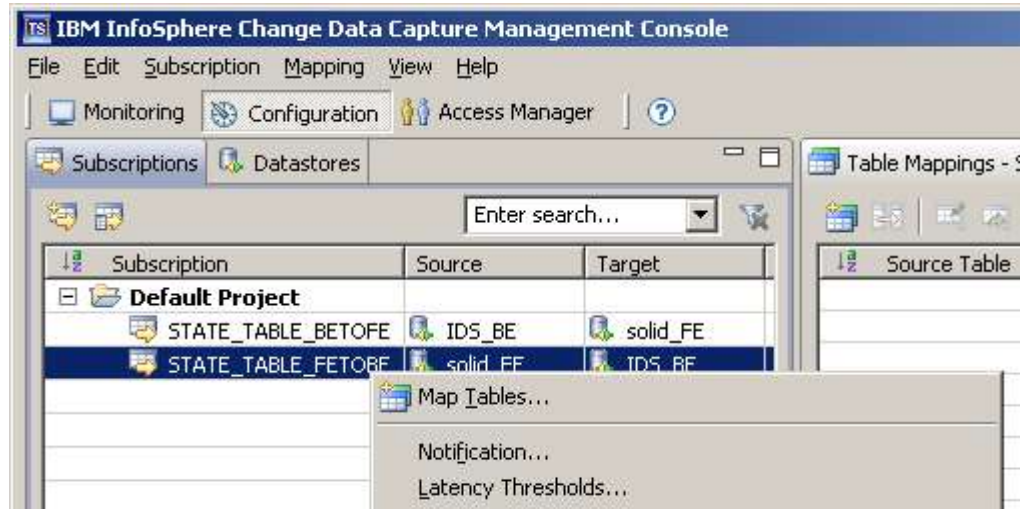
Target Table:

- DBA
 - CALL_TYPE
 - CUST_CALLS
 - CUSTOMER
 - ITEMS
 - MANUFACT
 - ORDERS
 - STATE**
 - STOCK

Zvolení replikační metody



Výběr repliky (FE->BE) a typu mapování



Mapování tabulky „state“ (BE -> FE)

Map Tables

Select Source Tables

Select one or more source tables to map to target tables.

Source Tables:

Table	Replicate
DBA	<input checked="" type="checkbox"/>
CALL_TYPE	<input type="checkbox"/>
CUST_CALLS	<input type="checkbox"/>
CUSTOMER	<input type="checkbox"/>
ITEMS	<input type="checkbox"/>
MANUFACT	<input type="checkbox"/>
ORDERS	<input type="checkbox"/>
STATE	<input checked="" type="checkbox"/>
STOCK	<input type="checkbox"/>

Map Tables

Map Source Tables to Existing Target Tables

Select the target table to map to the example source table that is displayed relationship will be used to map the other selected source tables.

Source Table: DBA.STATE

Target Table:

- informix
 - call_type
 - catalog
 - cust_calls
 - customer
 - items
 - manufact
 - orders
 - state
 - stock
 - ts_auth
 - ts_bookmark
 - ts_confaud

Map Tables

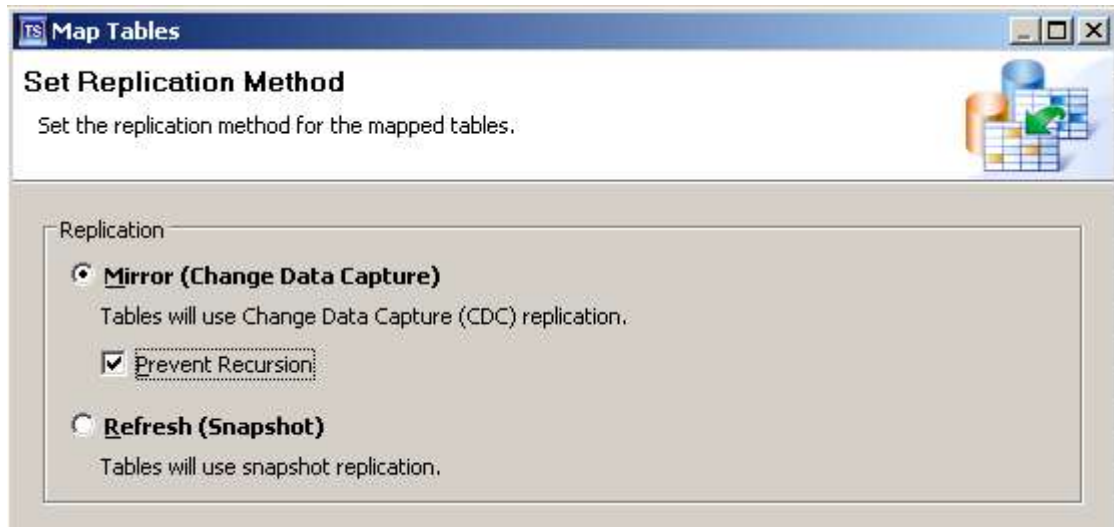
Select Existing or Create New Target Tables

Specify whether you want to map to existing target tables or ma

Map to existing target tables

Map source tables to existing target tables.

Zvolení replikační metody



Spuštění replik

The screenshot shows the IBM InfoSphere Change Data Capture Management Console. The 'Subscriptions' tab is active, displaying a table of subscriptions. A context menu is open over the 'STATE_TABLE_FETOBE' subscription, showing options to start or end replication.

Subscription	State	Status	Latency	Events	Source	Target
Default Project						
STATE_TABLE_BETOFE	Inactive	Normal			IDS_BE	solid_FE
STATE_TABLE_FETOBE	Inactive	Normal			solid_FE	IDS_BE

Context menu options for STATE_TABLE_FETOBE:

- Show Table Mappings
- Show Statistics
- Show Event Log
- Start Refresh...
- Start Mirroring (Continuous)
- Start Mirroring (Net Change)
- End Replication

The screenshot shows the IBM InfoSphere Change Data Capture Management Console. The 'Subscriptions' tab is active, displaying a table of subscriptions. The 'STATE_TABLE_BETOFE' subscription is now in a 'Mirror Cont...' state, and the context menu is open over the 'STATE_TABLE_FETOBE' subscription.

Subscription	State	Status	Latency	Events	Source	Target
Default Project						
STATE_TABLE_BETOFE	Mirror Cont...	Normal			IDS_BE	solid_FE
STATE_TABLE_FETOBE	Inactive	Normal			solid_FE	IDS_BE

Context menu options for STATE_TABLE_FETOBE:

- Show Table Mappings
- Show Statistics
- Show Event Log
- Start Refresh...
- Start Mirroring (Continuous)
- Start Mirroring (Net Change)
- End Replication

Děkuji za pozornost

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