Virtual Desktop Service
User Guide

DB Systel GmbH

VDS User Guide

Version 2.8

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1. Introduction

1.1 Preliminary Note

DB Systel's Enterprise VDS platform (Virtual Desktop Services) is a platform for centrally provisioning virtual desktops and applications.

Enterprise VDS thereby supplements the existing product portfolio:

- Applications and desktops are not realised directly on the terminal, as usual, but instead on central servers in data centres managed by Deutsche Bahn.
- Applications, desktops, and data can be accessed from any terminal.
    - Image data and mouse and keyboard inputs are typically all that is transferred between the terminal and VDS servers.

This document is primarily intended for users who interact with one of the following types of terminal:

- VDS thin client
- Client managed by DB Systel (BKU / GMD / MT8 / MDX)
- Client not managed by DB Systel (DB Group companies, subcontractors)
  PC´s, Mac´s or mobile devices (Tablets, Smartphones)

To use VDS, you must first prepare your terminal as described in section 2.

Section 5 provides several useful tips and tricks for working with VDS.

To use VDS, you will need:

- A valid BKU account with the appropriate authorisation to log on to Enterprise VDS
- A terminal that meets the technical prerequisites for using Enterprise VDS (see **Fehler! Verweisquelle konnte nicht gefunden werden.**) as well as the regulations stipulated by Deutsche Bahn (see 1.3)

1.2 Support Times and Maintenance Windows

Support times	Monday through Friday[1] 8 a.m. to 5 p.m.
Regular maintenance windows	Every Friday between 01:00 – 03:00 am[2,3]
Softwaredeployment	Application and process software will be provided by VDS every two weeks Friday between 01:00 – 03:00 am[3]

[1] Exception: German federal legal holidays

[2] All VDS sessions are automatically logged off during a maintenance window.
Any documents that have not yet been saved have a high probability of being lost. You can log on again immediately after you have been logged off.

[3] The VDS Service will be unaffected.

1.3 Supported Terminals and Access Methods

You will need to have the Citrix client software installed on your terminal to use VDS (see **Fehler! Verweisquelle konnte nicht gefunden werden.**).

	Devices Provisioned and Operated by DB Systel	Devices Provisioned and Operated by Other DB Companies	Subcontractor Devices	Private Devices Used by Group Employees
PC/Notebook	✓	✓	✓	×[1]
Thin client	✓	×	×	×[1]

[1] Not permitted as per GWC committee resolution

2. Preparing the Terminal

2.1 Network Connection

Ensure that the terminal is connected to the Deutsche Bahn corporate network in one of the following ways:

- Via a direct, cable-based (LAN) connection
- Via a direct, wireless-based (WLAN) connection
- Via a remote VPN dial-in connection (RAS-VPN)
- Via token over VDS Desktop Services Portal (see[2])

Refer to the RAS-VPN user guide (see [1]) to learn how to connect your terminal to the Deutsche Bahn corporate network using the RAS-VPN method.

[1] To view the RAS-VPN user guide, navigate to https://vpn.extranet.deutschebahn.com/.
[2] VDS connection via Token without separate RAS-VPN connect. https://vds.service.deutschebahn.com/ (See section 3.2.)

2.2 Citrix Receiver client Installation

2.2.1 Thin Client

You can skip section **Fehler! Verweisquelle konnte nicht gefunden werden.** if you use a VDS thin client, since the Citrix client software required for this is already preinstalled and configured.

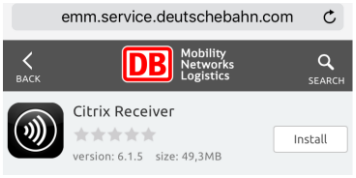
2.2.2 Clients Managed by DB Systel (BKU / GMD / MT8 / MDX/ Tablet/ Smartphone)

If you want to access VDS from your BKU V or GMD client, please contact the DB Systel IT-Service Desk (internal: 91-5555, external: +49 361 430 8200) to get the Citrix Receiver installed on your client.

For BKU 7, MT8 and MDX clients, the Citrix Receiver software is automatically preinstalled.

The Citrix Receiver is automatically started in the background and displayed in the info area after you log on to a client managed by DB Systel (BKU / GMD / MT8 / MDX).

EMM-managed mobile devices (Tablets, Smartphones) could install the Citrix Receiver App over “DB Appstore”.



2.2.3 Clients Not Managed by DB Systel (DB Group Companies, Subcontractors)

If you have a PC or Mac that is not managed by DB Systel, you must install the Citrix Receiver software on your terminal.

The Citrix Receiver is available for many operating systems (e.g. Mac OS, Windows, Android, iOS etc.) and can be downloaded from http://receiver.citrix.com.

To use VDS, you will need Version 4.x. *or higher* of the Citrix client software.

If you need assistance installing the Citrix client software on your client not managed by DB Systel, please contact your local IT representative.

DB Systel's IT Service Desk does not provide support for clients not managed by DB Systel.

3. Logging on to VDS

3.1 Clients Managed by DB Systel (BKU / GMD / MT8 / MDX/)

If you work with a client managed by DB Systel , the Citrix Receiver installed on your client automatically displays the applications you have access to in the start menu of your client so that you can access them the same way you would with locally installed programs.

You can also use the VDS Web Portal (https://vds.intranet.deutschebahn.com) to access your applications.

3.2 Managed Tablets and Smartphones by DB Systel

Mobile Devices get access to the application via Citrix Receiver app. (see section 2.2.2)
On an EMM managed mobile device will the F5 Edge Client be installed automatically. This client ensures a VPN-Connection which is necessary to open a VDS-session.

Conditions and insdtructions are available in Serviceportal under:

Information->Mobile->Mobile Products & Services->VDS for mobile devices
https://serviceportal-shop.intranet.deutschebahn.com/is-bin/INTERSHOP.enfinity/WFS/Bahn-BahnShop-Site/en_US/-/EUR/ViewCatalog-Browse?CatalogCategoryID=dLsKtUBVM50AAAFTpDFazQ7K&OnlineFlag=1&ParentCategoryID=0skKtUBVppgAAAFMRqho0jJM&ParentCategoryPage=

3.3 Clients Not Managed by DB Systel (DB Group Companies, Subcontractors)

Users of a not managed client by DB Systel can access VDS via Virtual Desktop Services Portal.
This includes mobile devices (Tablets, Smartphones) also.

Conditions:

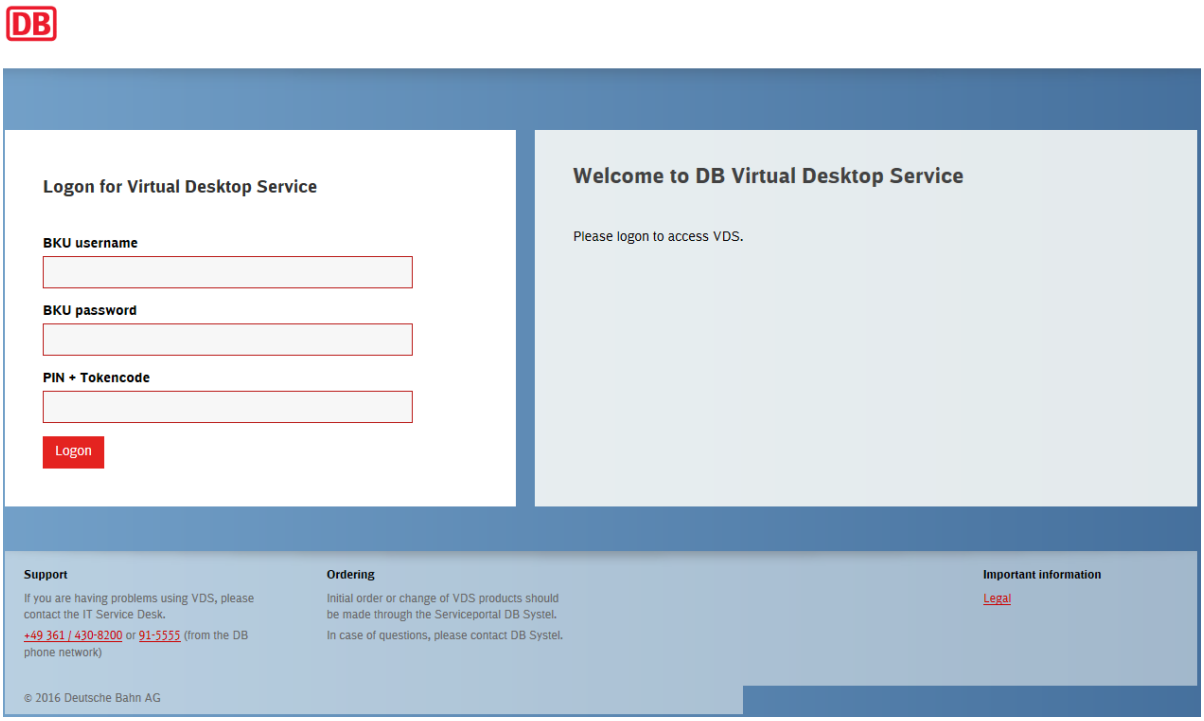
1. Connection to the Internet

2. Web Browser and Citrix Receiver (see section 2.2.3)

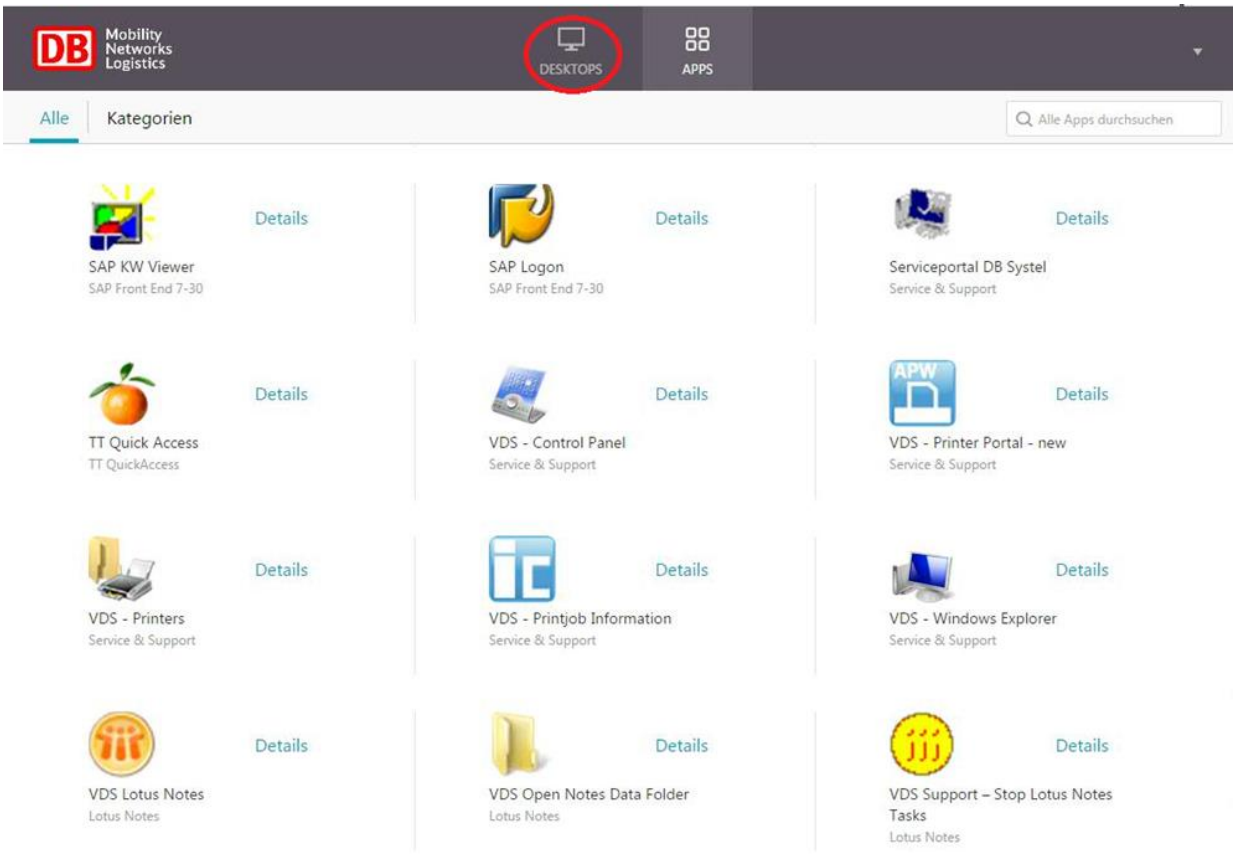
3. RAS/RAC-VPN Token (Hardware- or SMS-Token)

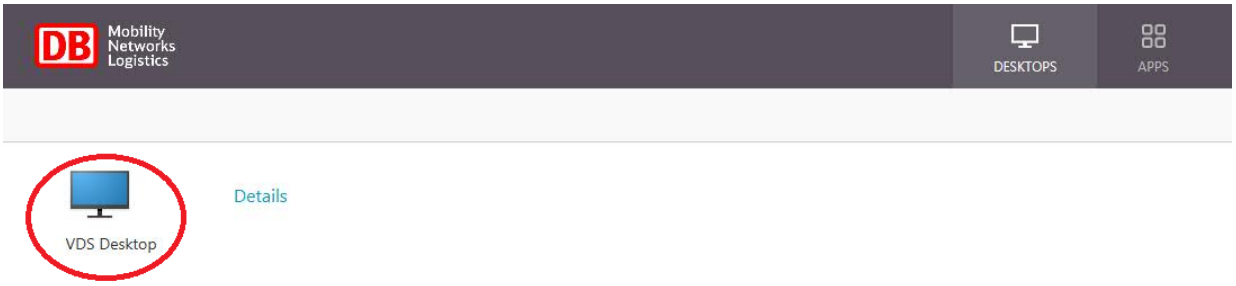
You **don´t** need a separate RAS-VPN connection to get to the Virtual Desktop Services.
The connection will be ensured after user authentication over the VDS Portal.
Please open the following link in your web browser. You can login with your BKU-credentials, further you need your RAS-VPN PIN + Tokencode.

https://vds.service.deutschebahn.com
Virtual Desktop Services Portal



After you logged on, the applications or desktops to which you have access are displayed.



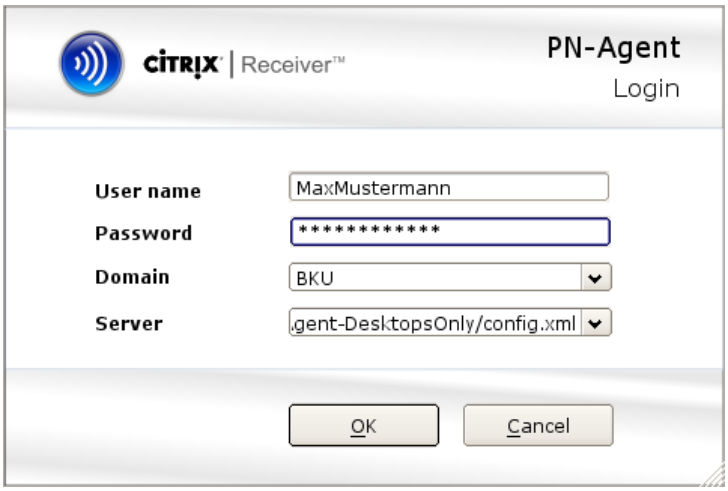


3.4 VDS Thin Client

The following logon screen appears when the VDS thin client is started. Enter your BKU user ID and password here. A connection to "VDS Desktop" is then automatically established.

Note:

The "Domain" and "Server" fields are preconfigured and should be left as is.



After you successfully log on, the desktop of your Enterprise VDS is loaded.

More information about using the VDS thin client is available in the "Thin Client Benutzeranleitung" (thin client user guide).

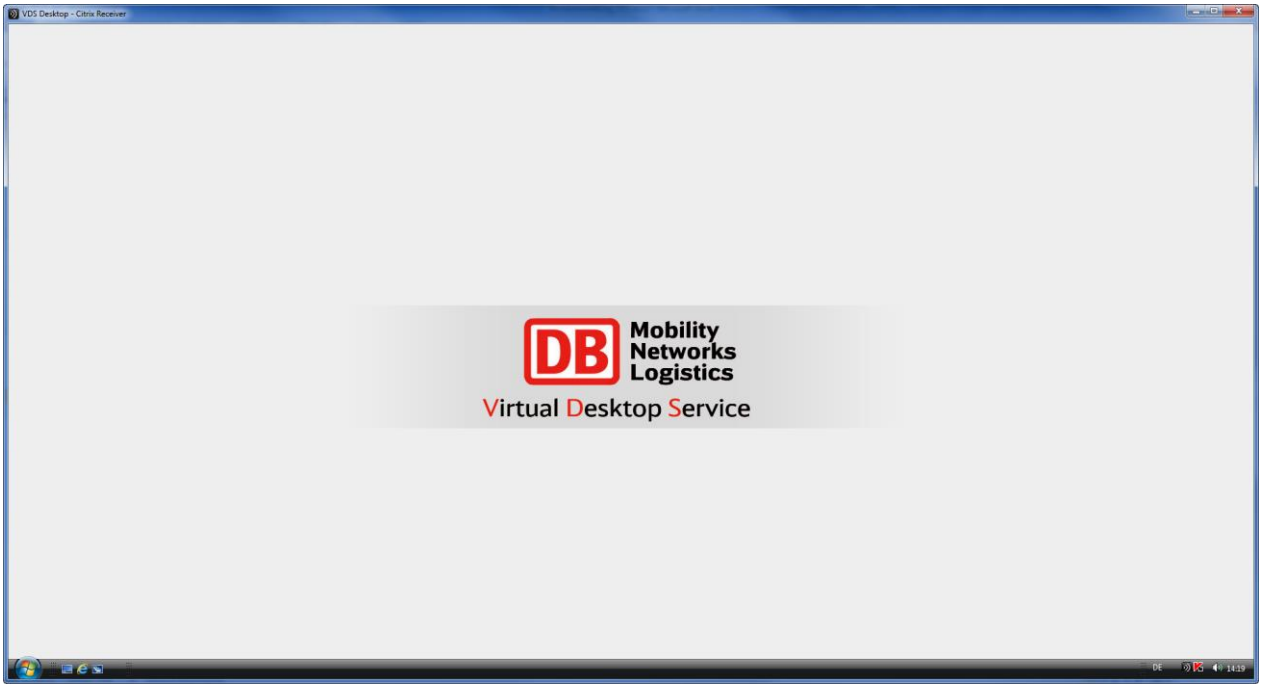
4. Using VDS

4.1 VDS Desktop

Enterprise offers applications as follows:

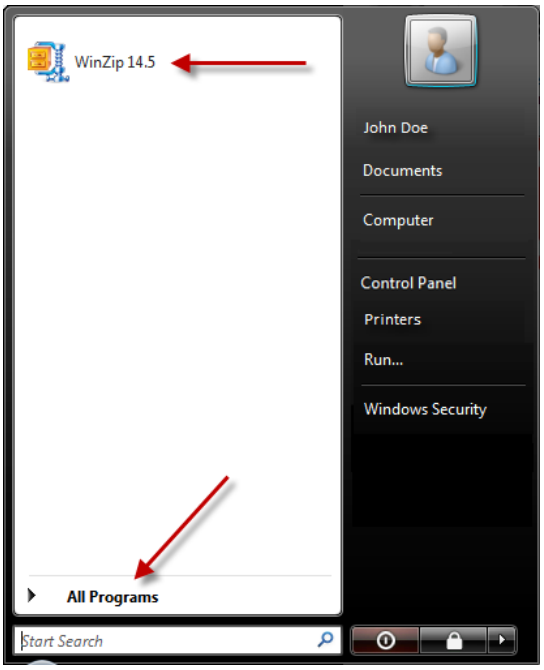
- If you access VDS from a client managed by DB Systel (BKU / GMD / MT8 / MDX), only individual VDS applications are listed in the start menu.
- If you access VDS from a client not managed by DB Systel (DB Group companies, subcontractors) or from a VDS thin client, "VDS Desktop" appears.

  Note: "VDS Desktop" is **not** displayed on a client managed by DB Systel (BKU / GMD / MT8 / MDX).



4.2 Access to Applications

You can load applications as you usually would, via the start menu, from within "VDS Desktop".



4.3 VDS-Profile Data

Each new connection and start of an individual application needs application settings and app data, which are required for the current configuration.

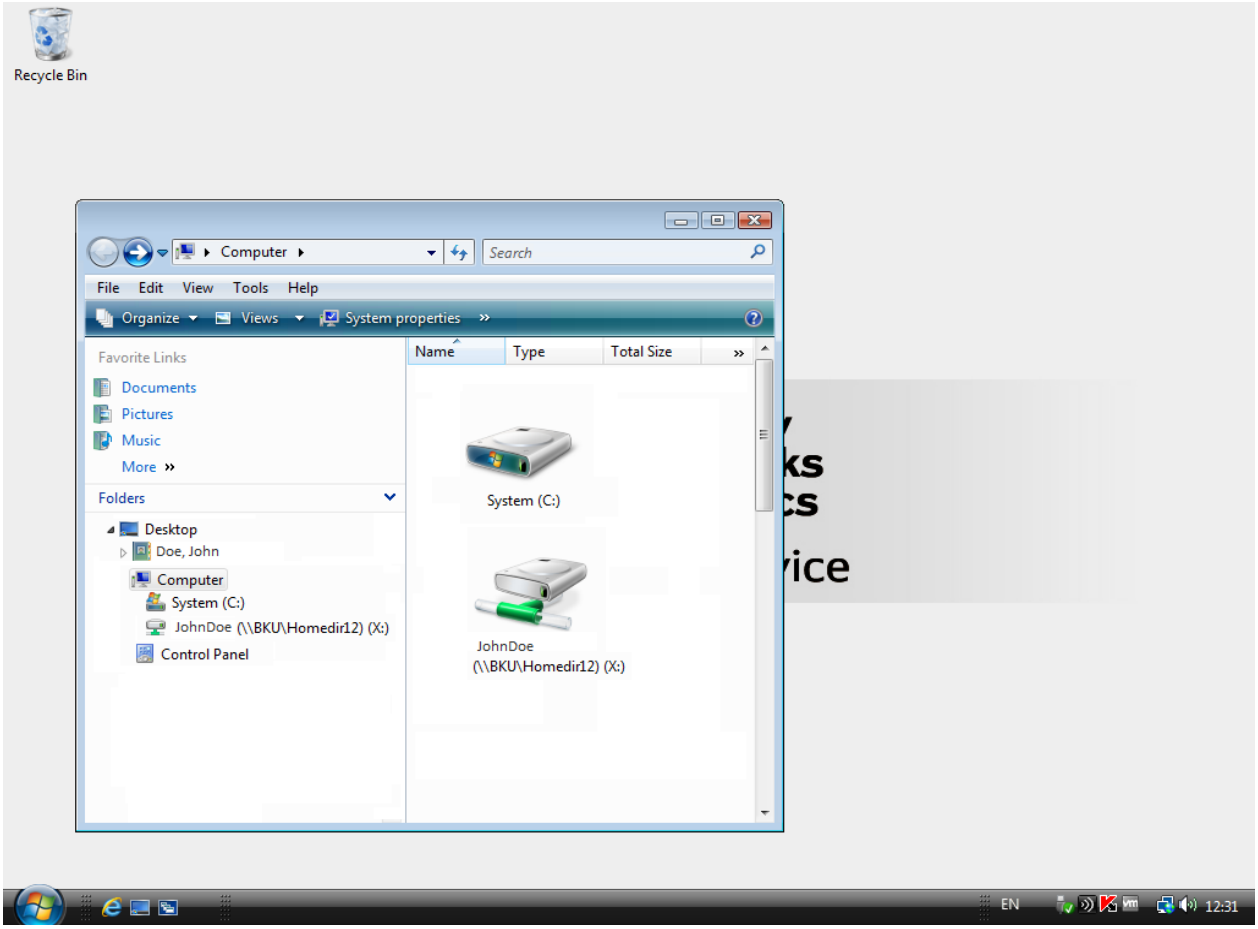
This data will be saved when logging off and will be provided in your next VDS session.

For reaching a good performance during the start process of the VDS session and minimize latency we use a separate High-Available Storage in Berlin located nearby the VDS Servers.

4.4 Access to the X Drive (home share)

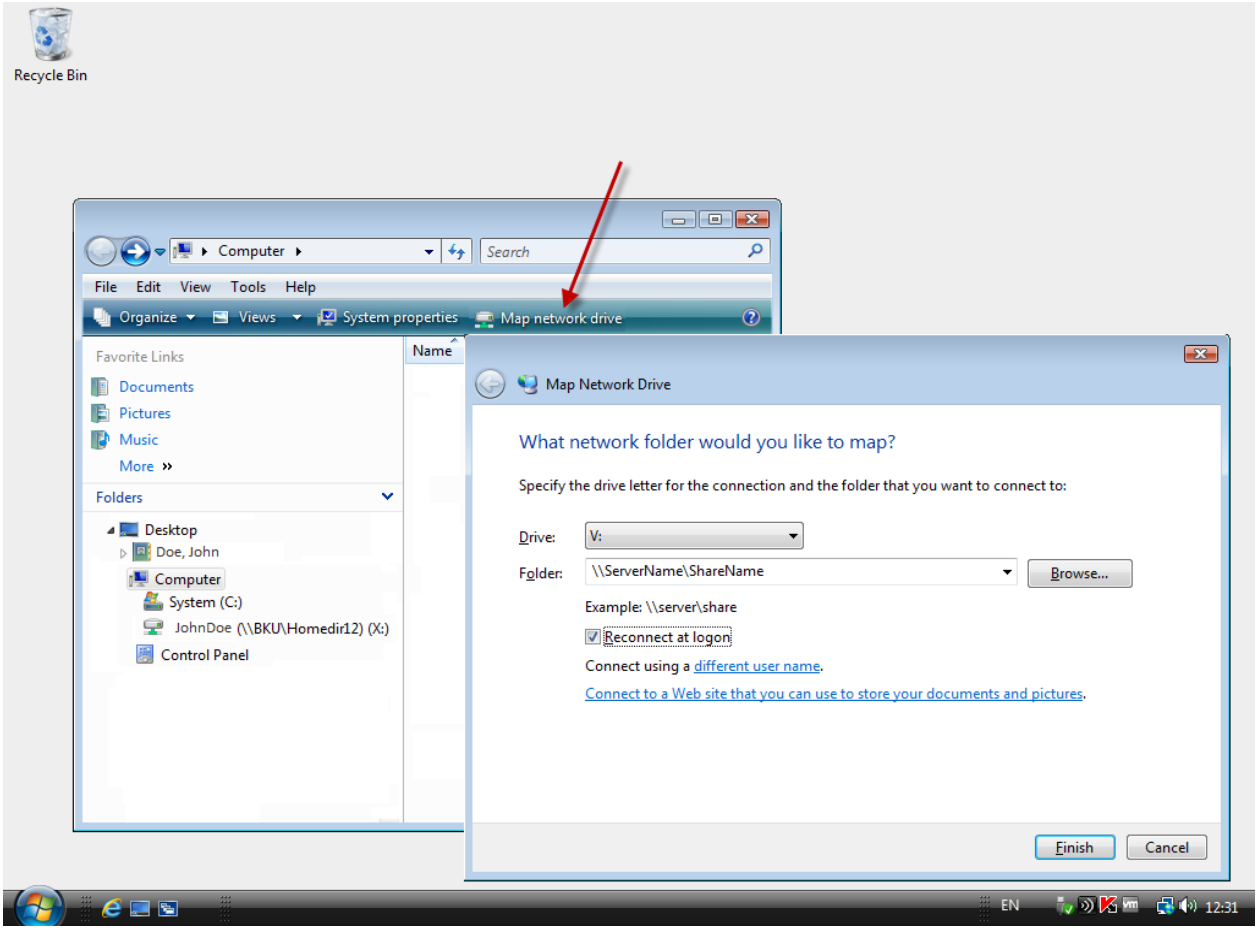
The X drive is a personal network drive on which configurations and personal documents can be saved. (note also section 5.2)

As a VDS user, you have a personal X drive:



4.5 Access to Group Drives

During a VDS session, BKU network drives are accessed via Windows Explorer, which you are already accustomed to doing when working on your BKU / GMD / MT8 / MDX client.



5. Tips for Using VDS

5.1 Installing Your Own Software

VDS users are **not** allowed to install their own software, such as plug-ins for Internet Explorer, from within the VDS Desktop environment.

5.2 Migrating Settings and Documents

Settings and documents from your previous terminal are **not** automatically transferred to VDS. Once you have configured the respective settings, however, they are saved and made available the next time you log on.

Settings are **not** synchronised between your terminal and VDS.

5.3 Saving Documents

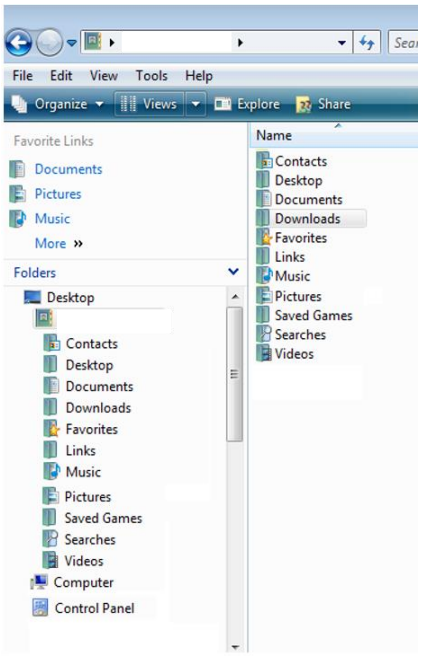
Documents should be saved to the following locations when working with VDS:

- Group drives
- X drive (personal home drive)

Note:

- Saving documents to drive **C:** on the VDS server is **not** possible.

Windows folders such as "My Documents" or "Desktop" are automatically redirected to your personal X drive for VDS. Files you save to the desktop in VDS are then saved to X:\Documents\Desktop.

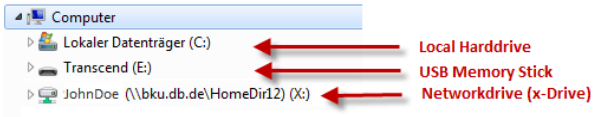
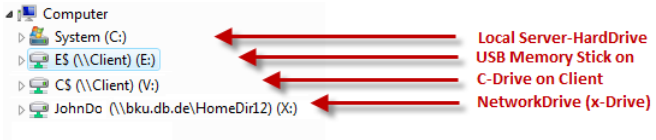
View in Windows Explorer (VDS)	**View on X drive (VDS)**
	X:\Documents\Pictures X:\Documents\Desktop X:\Documents\ X:\Documents\Download X:\Documents\Saved Games X:\Documents\Contacts X:\Documents\Links X:\Documents\Music X:\Documents\Searches X:\Documents\Videos

5.4 Exchanging Data Between the Terminal and VDS

If you use a client managed by DB Systel (BKU / GMD / MT8 / MDX) or a VDS thin client, you can exchange data between your terminal and VDS as follows:

1. Via the clipboard (copy/paste)
2. Via client drives (local or network drives)

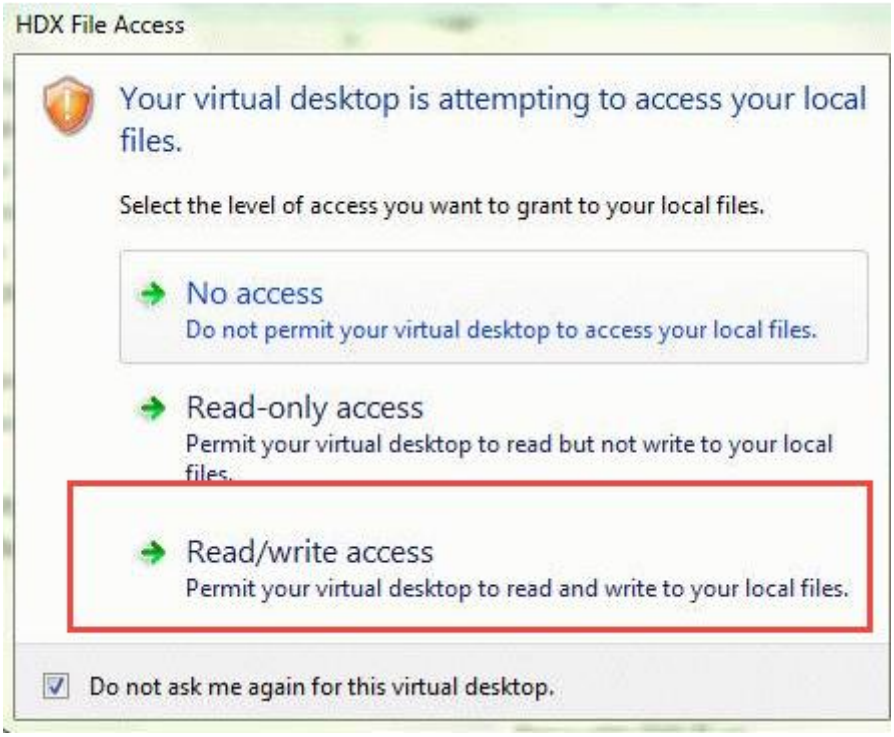
The drives of your terminal are displayed somewhat differently than in the following example during a VDS session.

View on your terminal	**View during VDS session**
	

The drive letters of the client drives are assigned as they are on the client during a VDS session, provided that these letters are not already being used.

When you log on to VDS for the first time, you may need to establish initial access to your terminal drives.

Note: Doing so merely confirms the type of access you use for them. No other VDS user or administrator is then granted access to your client drives.



Note:

The configuration only needs to be made once and is automatically applied the next time you log on to VDS.

User of Devices which are not managed by DB Systel will not have access to the local Harddrive via VDS.

5.5 Working On the Go

You can also use VDS via UMTS in conjunction with RAS VPN. The network connection (mobile telecommunications network) must be reliable, however. It is not possible to work when the connection is interrupted.

- VDS sessions always require a live connection to the Deutsche Bahn K2 network.
  - **VDS cannot be used offline!**

- When the network connection is momentarily interrupted, your VDS session retains its "active" status for up to 180 seconds. The session screen then "freezes" while an attempt to re-establish the connection to VDS is made in the background. If the connection cannot be re-established within the 180-second period, the VDS session is assigned "disconnected" status on the VDS platform. This means that the VDS session and all open applications retain "active" status; an attempt to automatically re-establish the connection is not made, however. The connection must then be initiated manually (cf. section 5.6).

  - Exception: When a VDS thin client is used, the window is closed a few seconds after connectivity has been lost and several automatic attempts are made to re-establish the connection at 30-second intervals.

5.6 Interrupting and Re-Establishing VDS Sessions

Desktops and applications provided via VDS are run on central servers in the data centres of Deutsche Bahn and can be used on many different terminals.

VDS sessions always have one of the following statuses:

A) **Active** → The terminal is connected to a session and the session is being actively used.

B) **Active (idle)** → The session is connected but idling (i.e. no mouse or keyboard inputs have been made).

C) **Disconnected** → The terminal is not connected to a session, which maintains the status it last had on VDS servers for a certain amount of time. Your existing session will be launched when you open (klick on app button) your application or desktop session again.

When is a VDS session *disconnected*?

A) If you are connected to VDS and have not made any mouse or keyboard inputs for a certain amount of time, the session will be automatically disconnected.

B) A session can also be disconnected if your terminal loses its active connection to VDS (cf. section 5.5).

C) You can likewise disconnect a VDS session via the respective menus on the Citrix Receiver.

Disconnected sessions can be reconnected from any VDS-capable terminal, at which point you can continue working where you left off.

When is a disconnected session *logged off*?

A disconnected VDS session is automatically logged off if you do not reconnect it within a certain amount if time.

Any unsaved documents will likely be lost at this time!

5.7 Printing

5.7.1 VDS Thin Client

If you use a thin client, you will continue to have the familiar printing functionality of a Windows terminal at your disposal during VDS sessions.

This functionality differs from that of your BKU client as follows:

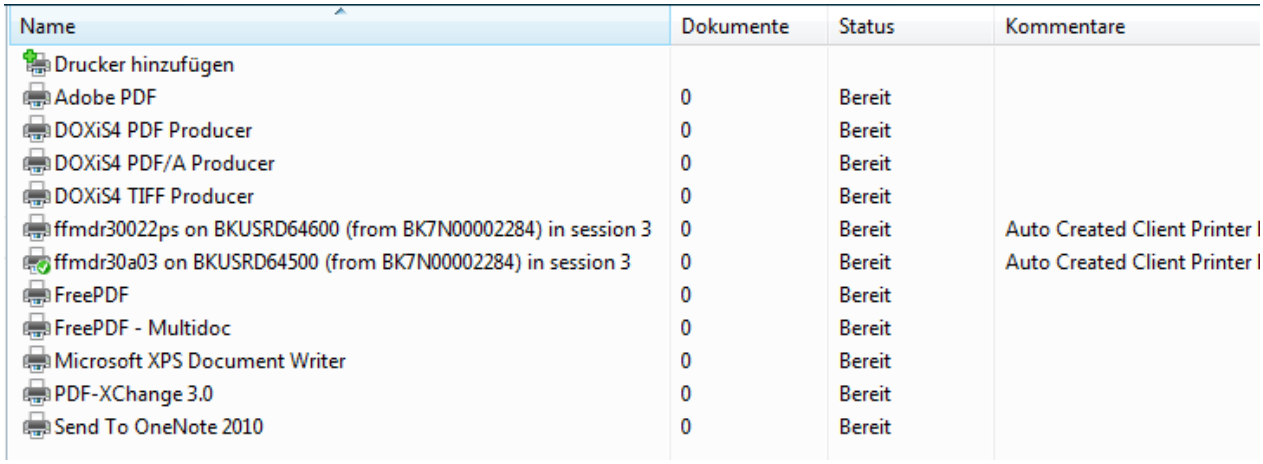
- Printers are not automatically made available during the VDS session.
- Local printers (USB) are not connected to the VDS thin client as per the DB print concept. As a result, local printers are not supported.

Information about how to connect to a network printer from a VDS thin client *during* a VDS session can be found in section 5.7.3.

5.7.2 Using the Citrix Client on a Fat Client (Windows, Mac OSX)

If you establish a VDS session on a fat client, all printers configured on your terminal are automatically integrated in the session every time you log on.

You can identify these printers based on their designation *"(from client name) in session xyz*", whereby the client name corresponds to the network name of your fat client. The "Comments" column also contains the description "Auto Created Client Printer" (see screenshot).



Name	Dokumente	Status	Kommentare
Drucker hinzufügen			
Adobe PDF	0	Bereit	
DOXiS4 PDF Producer	0	Bereit	
DOXiS4 PDF/A Producer	0	Bereit	
DOXiS4 TIFF Producer	0	Bereit	
ffmdr30022ps on BKUSRD64600 (from BK7N00002284) in session 3	0	Bereit	Auto Created Client Printer
ffmdr30a03 on BKUSRD64500 (from BK7N00002284) in session 3	0	Bereit	Auto Created Client Printer
FreePDF	0	Bereit	
FreePDF - Multidoc	0	Bereit	
Microsoft XPS Document Writer	0	Bereit	
PDF-XChange 3.0	0	Bereit	
Send To OneNote 2010	0	Bereit	

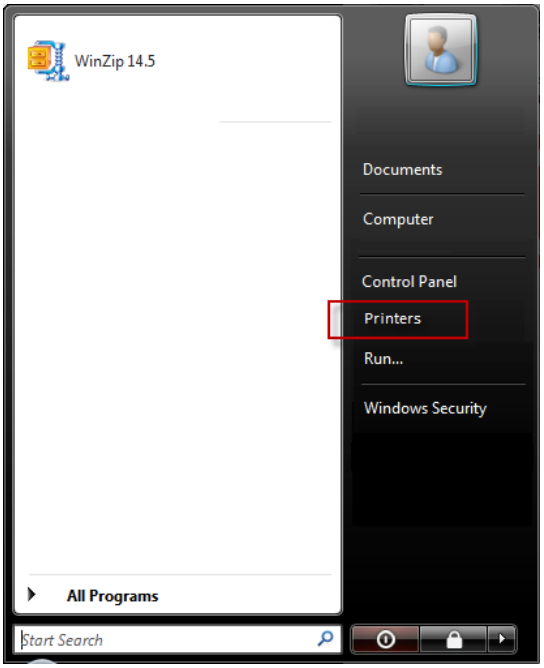
5.7.3 Connecting a BKU Network Printer

This section describes how you can connect a BKU 7 network printer during a VDS session.

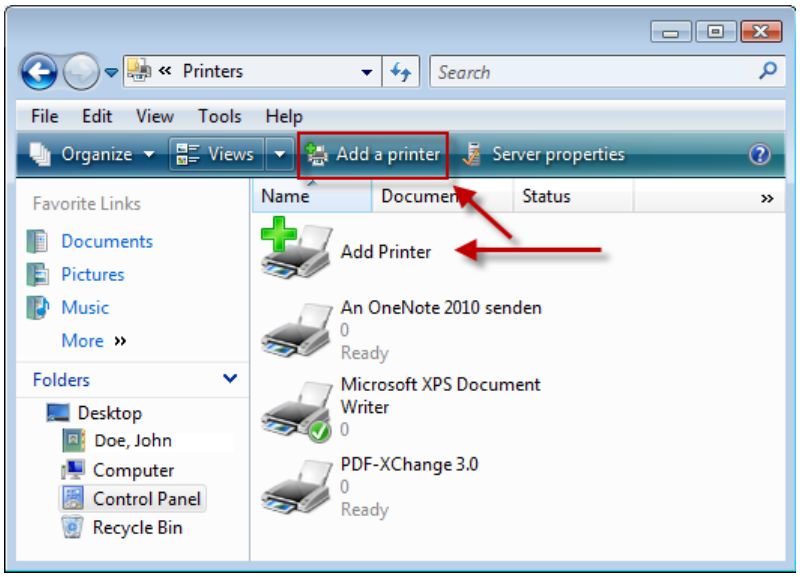
(You can **only** connect printers to printers via a BKU 7 Print Server.)

5.7.3.1 Modus: VDS-Desktop

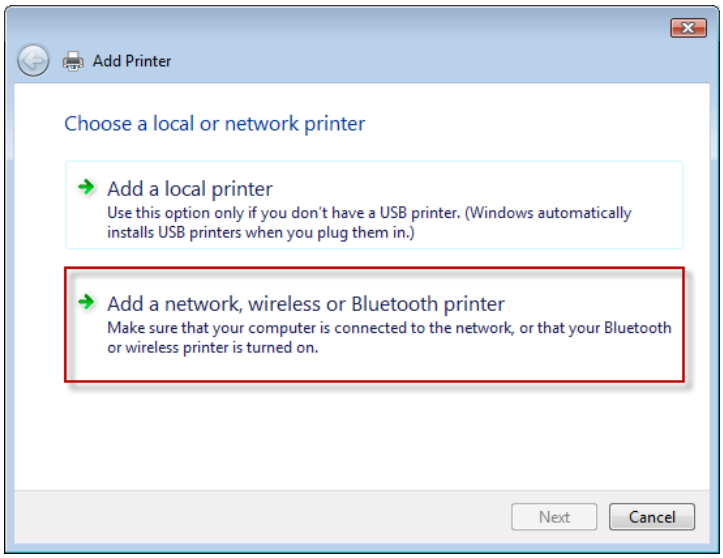
Load "VDS Desktop" and navigate to "Start → Printers" to add a printer.



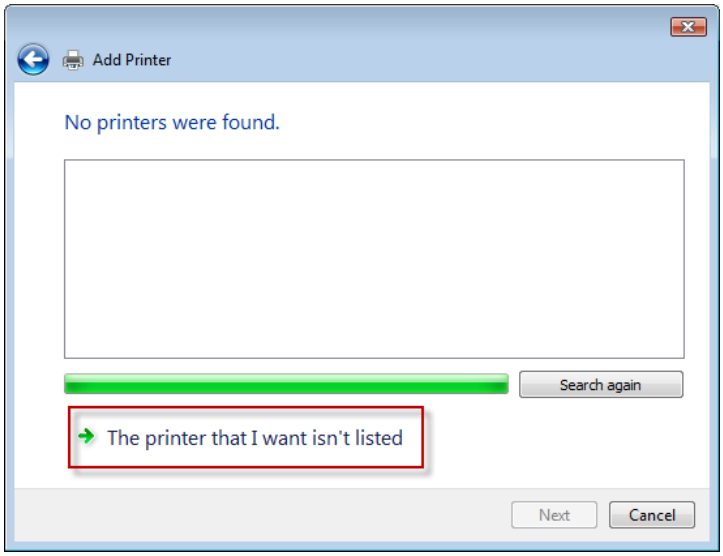
Now choose "Add a printer".



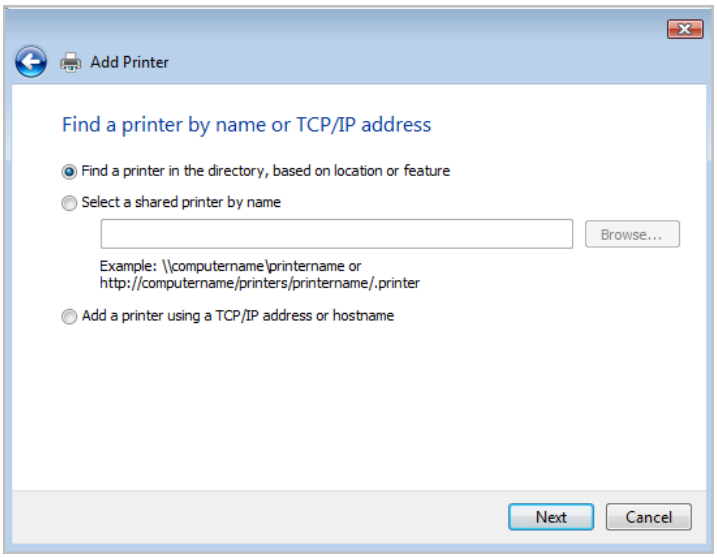
A dialog window opens. Select "Add a network, wireless or Bluetooth printer".



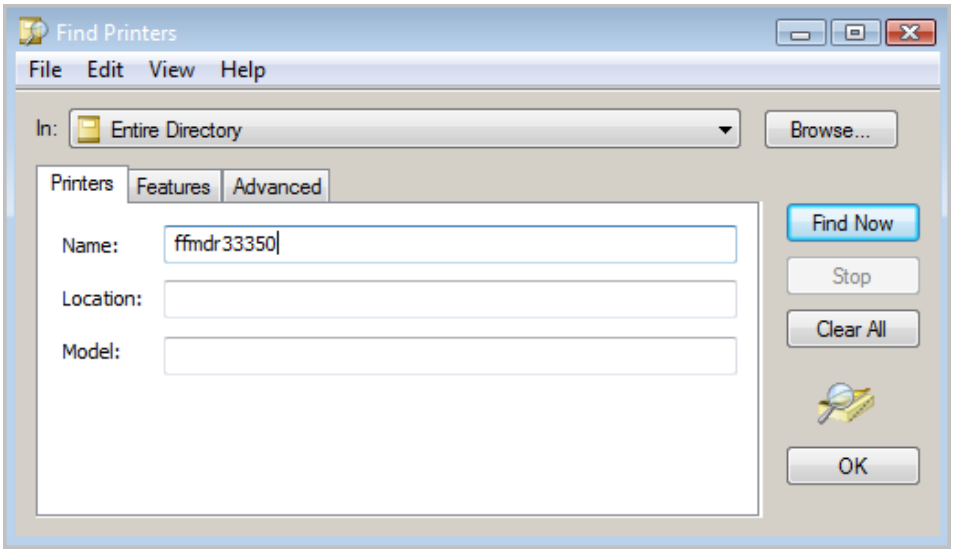
Select "The printer that I want isn't listed" in the following window.



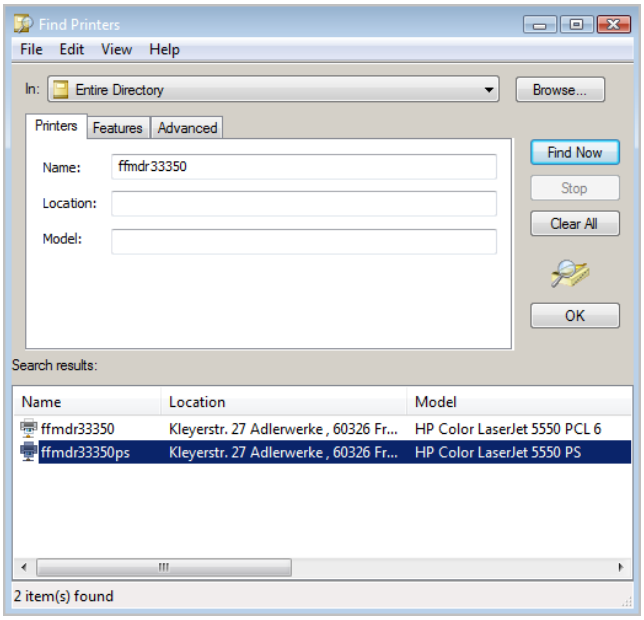
Select "Find a printer in the directory, based on location or feature”



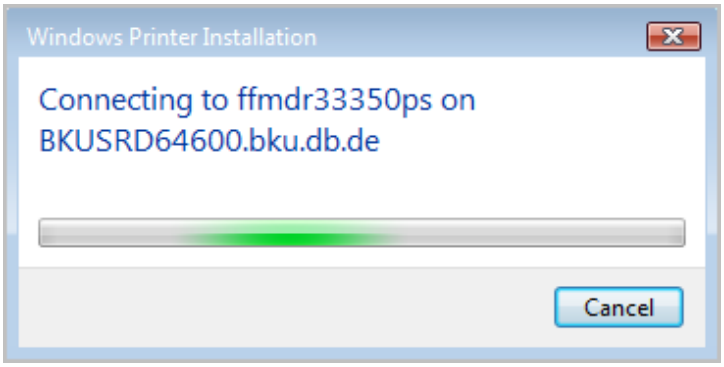
Fill in the printer’s name in the “Name” box. You can search also search for either “Location” or “Model”.



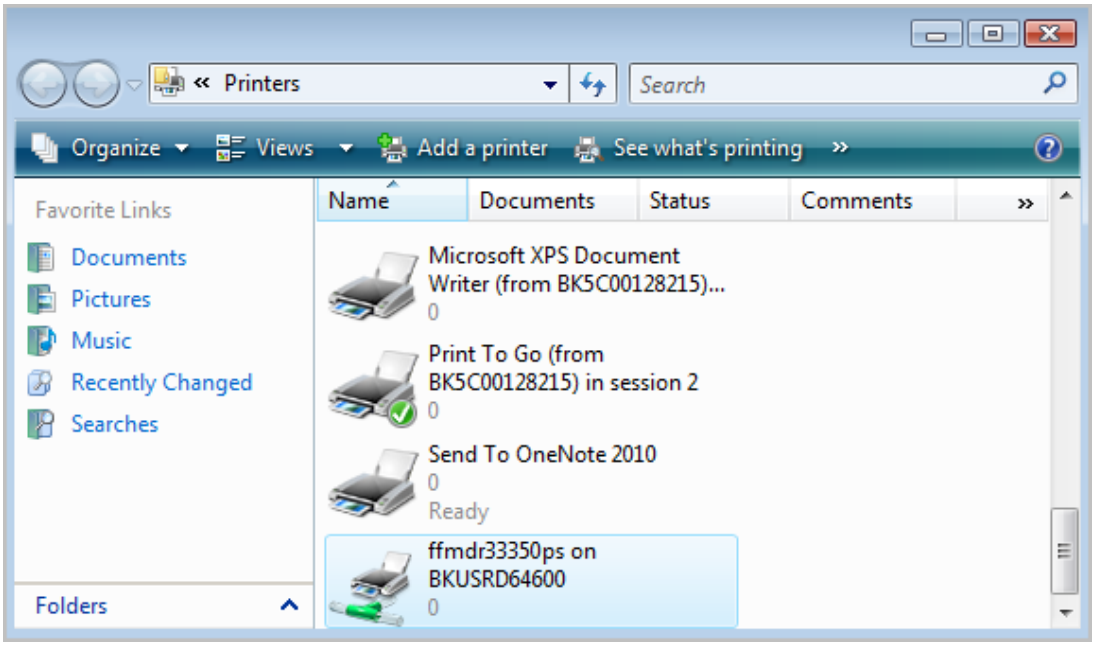
In this example, 2 objects were found. Please select one of these.



The printer will be connected.



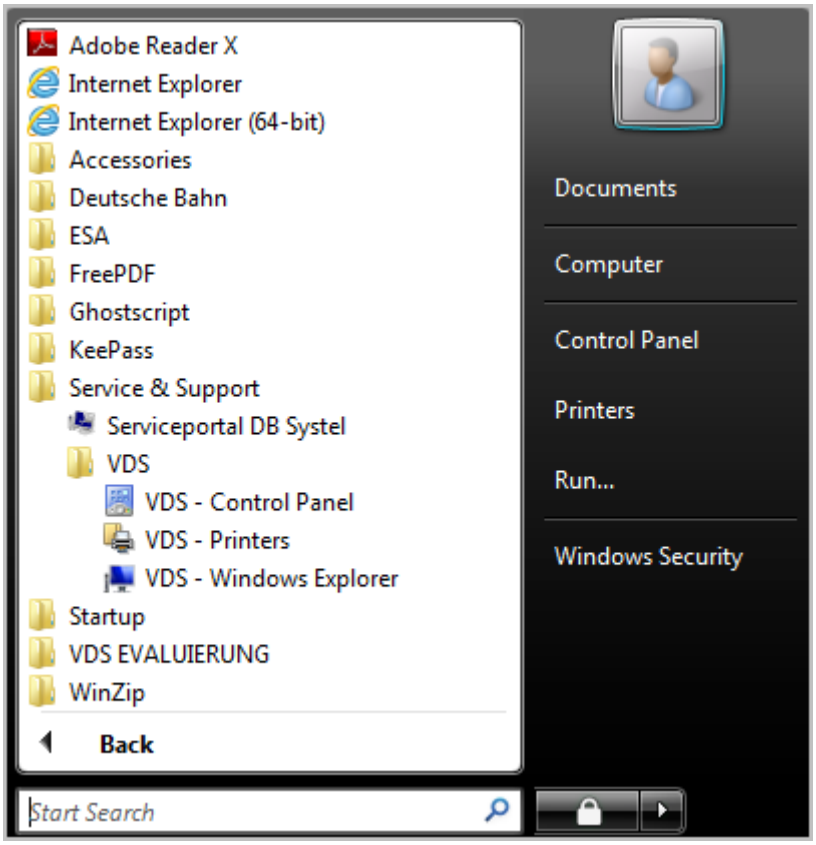
The printer object is connected.



5.7.3.2 Modus: VDS Shared Application

If you start a “VDS Shared Application” like e.g. “SAP GUI”, you can see a dialog for adding printers on your *BKU / GMD / MT8 / MDX-Client*.

Go to: “Start → All programs → Service & Support → VDS → VDS – Printers”



After starting the “Shared Application”, in this case “VDS – Printers” – you can proceed as described in point 5.7.3.1.

6. Using a VDS Thin Client

6.1 Preparing

6.1.1 BKU Account

You will need a valid BKU account with the appropriate authorisation to log on to Enterprise VDS.

6.1.2 Connecting

The following connections are required to use a thin client:

- The client is connected to the IP corporate network of Deutsche Bahn (cf. section 2.1) via a network cable.
- The client is connected to the power supply via a power cable.
- The client is connected to a monitor.

6.2 Starting the Thin Client

6.2.1 Starting

Switch the thin client on by actuating its on/off button (see picture below):

The operating system loads and the logon screen of the Citrix client appears.

Note: Starting the thin client takes a little time. Please wait until the Citrix logon screen appears.

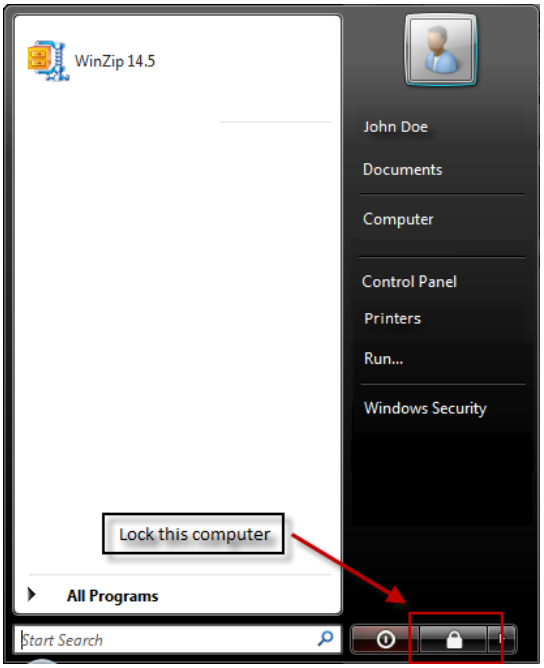
6.2.2 Logging on to Enterprise VDS From the Citrix Receiver Client

Section 3.4 describes how to log on to Enterprise VDS from the Citrix receiver client.

The logon screen automatically displays when you start the VDS thin client. Enter your BKU user ID and password here. A connection to "VDS Desktop" is then automatically established. After you successfully log on, the workstation environment and desktop of your Enterprise VDS are loaded.

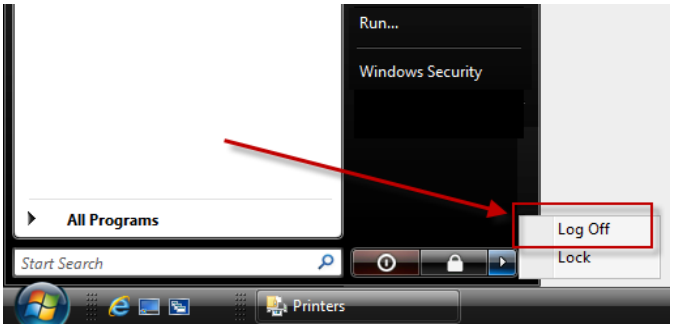
6.2.3 Locking the Screen

You can use the "Windows + L" key combination to lock the screen and protect it against unauthorised access as you would with your desktop computer. Another way to do this is to choose the Windows Start button and click the lock icon.



6.2.4 Logging Off VDS

Proceed as follows to log off VDS at the end of the work day, for example: Choose the Windows Start button, click the small arrow to the right of the lock icon, and select "Log Off".



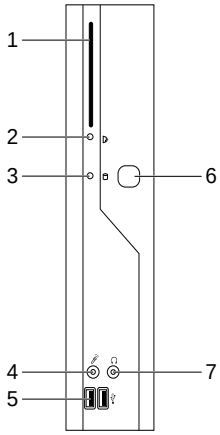
When you access VDS the next time, you will be required to log on.

6.3 Switching Off the Thin Client

You are automatically taken back to the home screen of the thin client when you successfully log off "VDS Desktop". The thin client can be switched off at this time. To do so, press the on/off button on the device. It is not necessary to shut down the operating system.

6.4 Connections and Controls

6.4.1 Front-Side Connections



1 = SmartCard reader**

2 = Indicator for SmartCard reader**

3 = Flash memory access

4 = Microphone jack**

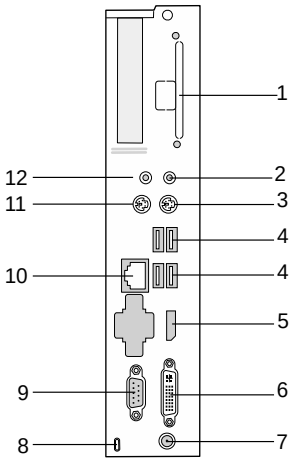
5 = USB (Universal Serial Bus) connections

6 = On/off button

7 = Headphone jack, audio output (line out)

** Not used

6.4.2 Rear-Side Connections



1 = Slot for Power over Ethernet or WLAN module**

2 = Audio output (line out)

3 = PS/2 keyboard interface

4 = USB connections

5 = Display port

6 = DVI-I monitor connection

7 = D/C jack (DC IN)

8 = Kensington security slot

9 = Serial interface

10 = RJ45 LAN (Local Area Network) connection

11 = PS/2 mouse interface

12 = Audio input (line in)

** Not used

6.5 Connecting Local Peripheral Devices to the Thin Client

6.5.1 Connecting a USB Mouse

Connect the USB mouse to a USB port on the device.

6.5.2 Connecting a USB Keyboard

Connect the USB keyboard to a USB port on the device.

If the keyboard cable is not permanently connected to the keyboard, insert the rectangular connector of the cable into the jack on the top or bottom side of the keyboard.

6.5.3 Connecting a USB Stick/USB Hard Disk

USB sticks in "FAT32" format are supported. Other formats and USB hard disks are not supported.

6.5.4 Connecting a Local Printer

It is not possible to connect a local printer to the thin client.

6.5.5 Connecting Headphones

Headphones can be connected to the line-out jack on the front or back side of the thin client.

6.5.6 Connecting a Kensington Lock

A Kensington lock can be connected to the Kensington lock security slot on the back side of the thin client.