File Transfer Profile (FTP)

***Bluetooth*® Test Suite**

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Contents

1 Scope

This Bluetooth document contains the Test Suite Structure (TSS) and test cases to test the implementation of the File Transfer Profile (FTP) with the objective to provide a high probability of air interface interoperability between the tested implementation and other manufacturers' Bluetooth devices.

2 References, definitions, and abbreviations

2.1 References

This document incorporates provisions from other publications by dated or undated reference. These references are cited at the appropriate places in the text, and the publications are listed hereinafter. Additional definitions and abbreviations can be found in [1], [2], and [4].

[1] Bluetooth Core Specification, Version 2.0 or later

[2] File Transfer Profile Specification

[3] ICS Proforma for File Transfer Profile (FTP)

[4] Test Strategy and Terminology Overview

[5] Generic Object Exchange Profile Specification

[6] IXIT Proforma for FTP

[7] SDP Test Suite, SDP.TS

[8] GOEP Test Suite, GOEP.TS

2.2 Definitions

In this Bluetooth document, the definitions from [1], [2], and [4] apply.

2.3 Acronyms and abbreviations

In this Bluetooth document, the definitions, acronyms, and abbreviations from [1], [2], and [4] apply.

3 Test Suite Structure (TSS)

3.1 Overview

Each Bluetooth Profile defines a series of features and the way they should be implemented using the available protocol stack.

Within the File Transfer Profile, the features are Folder Browsing, Object Transfer and Object Manipulation. Although certain features and formats may not be supported by an IUT, it must also be ensured that support can be handled properly by the applications (e.g., Pull non-support message).

The File Transfer Profile is based on the Generic Object Exchange (OBEX) profile and uses pre-defined object formats.

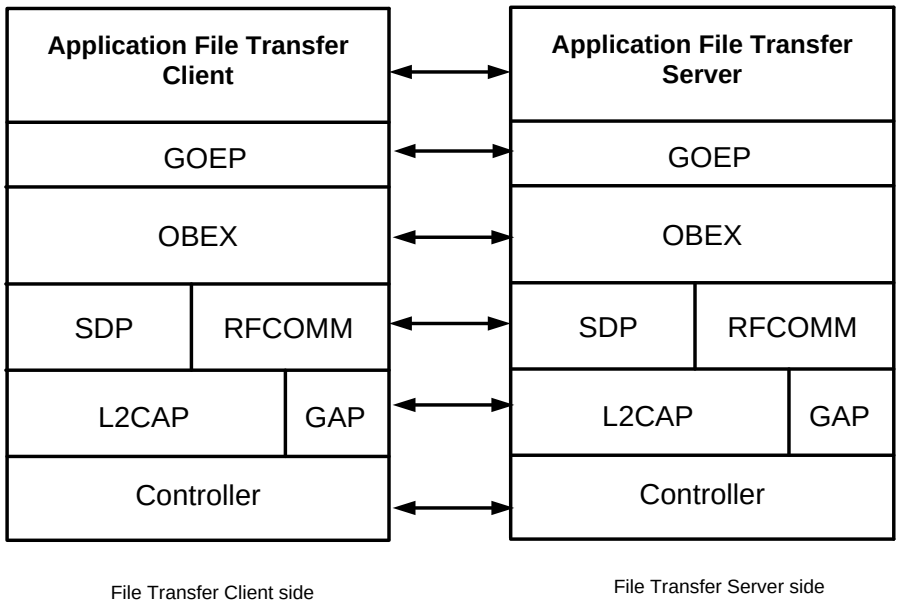

Figure 3.1: File Transfer Profile test models

3.2 Test Strategy

The test objectives are to verify the functionality of the File Transfer Profile within a Bluetooth Host and enable interoperability between Bluetooth Hosts on different devices. The testing approach covers mandatory and optional requirements in the specification and matches these to the support of the IUT as described in the ICS. Any defined test herein is applicable to the IUT if the ICS logical expression defined in the Test Case Mapping Table (TCMT) evaluates to true.

The test equipment provides an implementation of the Radio Controller and the parts of the Host needed to perform the test cases defined in this Test Suite. A Lower Tester acts as the IUT's peer device and interacts with the IUT over-the-air interface. The configuration, including the IUT, needs to implement similar capabilities to communicate with the test equipment. For some test cases, it is necessary to stimulate the IUT from an Upper Tester. In practice, this could be implemented as a special test interface, a Man Machine Interface (MMI), or another interface supported by the IUT.

This Test Suite contains Valid Behavior (BV) tests complemented with Invalid Behavior (BI) tests where required. The test coverage mirrored in the Test Suite Structure is the result of a process that started with

catalogued specification requirements that were logically grouped and assessed for testability enabling coverage in defined test purposes.

3.3 Test groups

The following test groups have been defined:

- Generic SDP Integrated Tests
- Select Server
- Folding Browsing
- Object Transfer
- Object Manipulation

4 Test cases (TC)

4.1 Introduction

4.1.1 Test case identification conventions

Test cases are assigned unique identifiers per the conventions in [4]. The convention used here is:
<spec abbreviation>/<IUT role>/<class>/**<feat>**/<func>/<subfunc>/<cap>/**<xx>-<nn>-<y>**.

Testing of this specification includes a set of tests from the GOEP Test Suite [8]; when used, the GOEP tests are referred to in the TCMT per the following convention:
<spec abbreviation>/<IUT role>/GOEP/<GOEP TC Identifier>.

Additionally, testing of this specification includes tests from the SDP Test Suite [7] referred to as Generic SDP Integrated Tests (GSIT); when used, the test cases in GSIT are referred to through a TCID string using the following convention:
<spec abbreviation>/<IUT role>/<GSIT test group>/<GSIT class>/<xx>-<nn>-<y>.

Identifier Abbreviation	**Spec Identifier <spec abbreviation>**
FTP	File Transfer Profile
Identifier Abbreviation	**Role Identifier <IUT role>**
CL	Client Role
SR	Server Role
Identifier Abbreviation	**Reference Identifier <GSIT test group>**
CGSIT	Client Generic SDP Integrated Tests
SGSIT	Server Generic SDP Integrated Tests
Identifier Abbreviation	**Reference Identifier <GSIT class>**
ATTR	Attribute
OFFS	Attribute ID Offset String
SERR	Service Record
SFC	SDP Future Compatibility
Identifier Abbreviation	**Feature Identifier <feat>**
FBR	Folder Browsing
GOEP	Generic Object Exchange Profile
OMA	Object Manipulation
OTR	Object Transfer
SSR	Select Server

Table 4.1: FTP TC feature naming conventions

4.1.2 Conformance

When conformance is claimed for a particular specification, all capabilities are to be supported in the specified manner. The mandated tests from this Test Suite depend on the capabilities to which conformance is claimed.

The Bluetooth Qualification Program may employ tests to verify implementation robustness. The level of implementation robustness that is verified varies from one specification to another and may be revised for cause based on interoperability issues found in the market.

Such tests may verify:

- That claimed capabilities may be used in any order and any number of repetitions not excluded by the specification
- That capabilities enabled by the implementations are sustained over durations expected by the use case
- That the implementation gracefully handles any quantity of data expected by the use case
- That in cases where more than one valid interpretation of the specification exists, the implementation complies with at least one interpretation and gracefully handles other interpretations
- That the implementation is immune to attempted security exploits

A single execution of each of the required tests is required to constitute a Pass verdict. However, it is noted that to provide a foundation for interoperability, it is necessary that a qualified implementation consistently and repeatedly pass any of the applicable tests.

In any case, where a member finds an issue with the test plan generated by the Bluetooth SIG qualification tool, with the test case as described in the Test Suite, or with the test system utilized, the member is required to notify the responsible party via an erratum request such that the issue may be addressed.

4.1.3 Profile procedure groups

4.1.3.1 Selecting Server

In this section, the presented scenarios work as examples and variations in the actual implementations are possible and allowed.

When the Client wants to select a Server the following user interaction can be followed:

Client	Server
	The user sets the device **into File Transfer mode**. A Server typically does not need to provide any other user interaction.
The user of the Client selects the **File** Transfer Application on the device.	
A list of Servers that may support the File Transfer service is displayed to the user.	
The user selects a Server in which to connect. The connection may require the user to enter a password for authentication. If both link level authentication and OBEX authentication is required then the user will need to be prompted for two passwords.	If the Client requires authentication of the Server then the Server will need to prompt the user for a password. If both link level authentication and OBEX authentication are required then the user will need to be prompted for two passwords.
After the connection is complete including any authentication the contents of the Server's root folder are displayed.	

4.1.3.2 File Transfer

The following user interaction shows how the user of the Client performs file transfer functions. The operations assume a Server has already been selected as described above.

Client	Server
The user is presented with the folder hierarchy of the Server. The first presentation has the root folder selected as the current folder.	
The user chooses a folder to be the current folder. The contents of this folder are displayed.	
To push a file from the Client to the Server the user selects a file on the Client and activates the **Push Object** function. The object is transferred to the current folder on the Server.	
To pull a file from the Server the user selects a file in the current folder of the Server and activates the **Pull Object** function. The user is notified of the result of the operation.	
To delete a file on the Server the user selects the file in the Server's current folder and activates the **Delete Object** function. The user is notified of the result of the operation.	
To create a new folder on the Server the user activates the **Create Folder** function. This function requests a name from the user for the folder. When complete a new folder is created in the Server's current folder.	

Depending on the architecture that is to use the File Transfer feature, the steps of the initial File Transfer procedure, or how items are pushed, may vary.

4.1.4 Pass/Fail verdict conventions

Each test case has an Expected Outcome section. The IUT is granted the Pass verdict when all the detailed pass criteria conditions within the Expected Outcome section are met.

The convention in this Test Suite is that, unless there is a specific set of fail conditions outlined in the test case, the IUT fails the test case as soon as one of the pass criteria conditions cannot be met. If this occurs, then the outcome of the test is a Fail verdict.

4.2 Generic SDP Integrated Tests

4.2.1 Server Generic SDP Integrated Tests

4.2.1.1 File Transfer – Server

Execute the Generic SDP Integrated Tests defined in Section 6.3, Server test procedures (SGSIT), in [7] using Table 4.2 below as input:

TCID	Reference	Attribute ID name	Attribute ID definition source (Universal, Profile)	Value/secondary value	Attribute presence (Present/Present for [role], Optionally present, TCMT defined)
FTP/SR/SGSIT/SERR/BV-01-C [Service record GSIT – FTP Server]	[2] 6	ServiceClassIDList	Universal	“OBEX File Transfer” (UUID)	Present for Server
FTP/SR/SGSIT/ATTR/BV-01-C [Attribute GSIT – Protocol Descriptor List]	[2] 6	ProtocolDescriptorList	Universal	“L2CAP” (UUID), “RFCOMM” (UUID): Channel – skip (Uint8), “OBEX” (UUID)	Present for Server
FTP/SR/SGSIT/ATTR/BV-02-C [Attribute GSIT – Bluetooth Profile Descriptor List, FTP 1.3]	[2] 6	BluetoothProfileDescriptorList	Universal	“OBEX File Transfer” (UUID): Version – “0x0103” (Uint16)	Optionally present
FTP/SR/SGSIT/ATTR/BV-03-C [Attribute GSIT – GOEP L2CAP PSM]	[2] 6	GoepL2capPsm	Profile	skip (Uint16)	TCMT defined

Table 4.2: Input for the File Transfer - Server SGSIT SDP test procedure

4.2.1.2 File Transfer Profile – Attribute ID Offset String tests

Execute the Generic SDP Integrated Tests defined in Section 6.3, Server test procedures (SGSIT), in [7] using Table 4.3 below as input:

TCID	Reference	ServiceSearchPattern	Attribute ID name	Attribute ID Offset	Attribute presence (Present/Present for [role], Optionally present, TCMT defined)
FTP/SR/SGSIT/OFFS/BV-01-C [Attribute ID Offset String GSIT – Service Name]	[2] 6	OBEX File Transfer	ServiceName	0x0000	Optionally present

Table 4.3: Input for the File Transfer Profile SGSIT Attribute ID Offset String tests

4.2.2 Client Generic SDP Integrated Tests

Execute the Generic SDP Future Compatibility Tests defined in Section 6.4, Client test procedures (CGSIT), in [7] using Table 4.4 below as input:

TCID	Reference	Service Record Service Class UUID description	Lower Tester SDP record initial conditions
FTP/CL/CGSIT/SFC/BV-01-C [SDP Future Compatibility – IUT is FTP Client]	[2] 6, 7	OBEXFileTransfer	The Lower Tester exposes an FTP Server SDP record. The version in the Bluetooth Profile Descriptor List is greater than the most recently adopted version.

Table 4.4: Input for the Client CGSIT SDP future compatibility tests

4.3 Select Server

The application in the Client will find the Server to start the Object Exchange mode. The Server must be in communication range. If the Client fails to find the Server, it cannot pass the rest of the tests.

4.3.1 List

- Test Purpose

  Client: Verify the accuracy of the list of surrounding devices that support File Transfer provided by the Client.

  Server: Verify that Object Exchange mode is entered and the Server is discoverable and connectable.

- Reference

  [2] 4.2

- Initial Condition

  - The IUT and Lower Tester are in Standby mode.

- Test Case Configuration

Test Case
FTP/SR/SSR/BV-01-C [List]
FTP/CL/SSR/BV-01-C [List]

Table 4.5: List test cases

- Test Procedure

  1. Set the Server into Object Exchange mode.
  2. Select the File Transfer Function on the Client.
  3. If possible, configure the Client to look for the surrounding devices that support File Transfer service, otherwise look for all services.

- Expected Outcome

  Pass verdict

  A notification that Object Exchange mode has been entered may be given on the Server.

  The Server is in the list of surrounding devices that support File Transfer.

- Notes

  The Object Exchange mode should be set by user action on the Server, but automatic setting will also be tolerated.

4.3.2 Server selection

- Test Purpose

  Verify that the Server can be selected from the list of available File Transfer Servers.

- Reference

  [2] 4.2

- Initial Condition
  - The Client has activated the File Transfer application.
  - The item to be pushed is prepared by the Client.
  - Object Exchange mode is set on the Server.
- Test Case Configuration

Test Case
FTP/SR/SSR/BV-02-C [Server selection]
FTP/CL/SSR/BV-02-C [Server selection]

Table 4.6: Server selection test cases

- Test Procedure

  1. The Client selects the Server to push the item to.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.

- Expected Outcome

  Pass verdict

  The proper connect response message is sent from the selected Server and received by the Client.

4.3.3 PIN check

- Test Purpose

  Verify that, if requested, the PIN code is handled correctly and the next state of the File Transfer application is reached.

- Reference

  [2] 4.2

- Initial Condition
  - The IUT and Lower Tester are not bonded.
  - File Transfer application is activated on the Client.
  - The item to be pushed is prepared by the Client.
  - A Server to push the item to is selectable.
  - Object Exchange mode is set on the Server.
- Test Case Configuration

Test Case
FTP/SR/SSR/BV-03-C [PIN check]
FTP/CL/SSR/BV-03-C [PIN check]

Table 4.7: PIN check test cases

- Test Procedure

  1. Select the Server to push the item to and activate the File Transfer function on the Client.
  2. If a Bluetooth PIN code is requested, enter the same PIN code on the IUT and Lower Tester.

- Expected Outcome

  Pass verdict

  If the Bluetooth PIN code is requested from the user prior to the File Transfer function, the entered PIN code is treated correctly and the application steps to the next state.

4.4 Folder browsing

Verify that the application supports both browsing and changing folder capabilities.

4.4.1 Browse – root folder

- Test Purpose

  Verify that the Server can provide the contents of the root folder to the Client.

- Reference

  [2] 4.2

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.
  - Create several files and folders on the Server.
  - The Server IUT should make every effort to be in a state where it can disclose the contents of its root folder to the Lower Tester.

- Test Case Configuration

Test Case
FTP/SR/FBR/BV-01-C [Browse – root folder]
FTP/CL/FBR/BV-01-C [Browse – root folder]

Table 4.8: Browse – root folder test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function on the Client.
  5. Pull the contents of the Server's root folder using GET.

- Expected Outcome

  Pass verdict

  The Client is able to request the list of the files and the folders in the root folder of the Server.

Either the Server is able to provide the contents of the root folder to the Client and they are correctly displayed, or if the IUT is the Server it can alternatively refuse to disclose the root folder and reply with an Unauthorized or Forbidden response.

4.4.2 Browse – subfolder

- Test Purpose

  Verify that the Server can provide the contents of the subfolder to the Client.

- Reference

  [2] 4.2

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Create the subfolder and add files to the subfolder on the Server.
  - Object Exchange mode is set on the Server.
  - The Server IUT should make every effort to be in a state where it can disclose the contents of its root folder to the Lower Tester.

- Test Case Configuration

Test Case
FTP/SR/FBR/BV-02-C [Browse – subfolder]
FTP/CL/FBR/BV-02-C [Browse – subfolder]

Table 4.9: Browse – subfolder test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the Browse Subfolder File Transfer function.

- Expected Outcome

  Pass verdict

  The Client is able to request the list of the contents of the subfolder on the Server.

  Either the Server is able to provide the contents of the subfolder to the Client and they are correctly displayed, or if the IUT is the Server it can alternatively refuse to disclose the root folder and reply with an Unauthorized or Forbidden response. The Client needs to browse the content of the root folder in order to move through the Server's folder hierarchy to select a subfolder, but the Server IUT can refuse to disclose the root folder.

4.4.3 Browse – current folder

- Test Purpose

  Verify that the user can browse the current folder.

- Reference

  [2] 4.2

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Create some folders that include at least one subfolder and files on the Server.
  - Object Exchange mode is set.
  - The Server IUT should make every effort to be in a state where it can disclose the contents of its root folder to the Lower Tester.

- Test Case Configuration

Test Case
FTP/SR/FBR/BV-03-C [Browse – current folder]
FTP/CL/FBR/BV-03-C [Browse – current folder]

Table 4.10: Browse – current folder test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the Browse Subfolder File Transfer function.
  5. Delete or rename some of the files in the subfolder, and then change to the parent folder on the Client.
  6. Perform the Browse Current Folder File Transfer function.

- Expected Outcome

  Pass verdict

  Either the Server is able to provide the newest contents of the current folder (not subfolder) to the Client and the list is displayed correctly, or if the IUT is the Server, it can alternatively refuse to disclose the root folder and reply with an Unauthorized or Forbidden response. The Client needs to browse the content of the root folder in order to moving through the Server's folder hierarchy to select a subfolder, but the Server IUT can refuse to disclose the root folder.

4.4.4 Set folder – parent folder

- Test Purpose

  Verify that the user can change the current folder to its parent folder.

- Reference

  [2] 4.2

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.

- Create some folders that include subfolders on the Server.
- A Server IUT should make every effort to be in a state where it can disclose the contents of its root folder to the Lower Tester.
- Set the folder to the subfolder.

- Test Case Configuration

Test Case
FTP/SR/FBR/BV-04-C [Set folder – parent folder]
FTP/CL/FBR/BV-04-C [Set folder – parent folder]

Table 4.11: Set folder – parent folder test cases

- Test Procedure

1. Select the Server to perform initial File Transfer with on the Client.
2. Perform Bluetooth PIN exchange.
3. Perform OBEX authentication if used.
4. Start the File Transfer function on the Client.
5. Move to one of the subfolders of the subfolders.
6. Perform a move to the parent folder.

- Expected Outcome

Pass verdict

Either the current folder is the parent folder of the previous one, or if the IUT is the Server it can refuse to disclose the root folder and reply with an Unauthorized or Forbidden response. The Client needs to browse the content of the root folder in order to move through the Server's folder hierarchy to select a subfolder, but the Server IUT can refuse to disclose the root folder.

4.4.5 Set folder – subfolder

- Test Purpose

Verify that the user can move to the subfolder.

- Reference

[2] 4.2

- Initial Condition

- The application for File Transfer is activated on the Client.
- The Server is selectable from a list.
- Object Exchange mode is set on the Server.
- Create at least one subfolder in the current folder on the Server.
- The Server IUT should make every effort to be in a state where it can disclose the contents of its root folder to the Lower Tester.

- Test Case Configuration

Test Case
FTP/SR/FBR/BV-05-C [Set folder – subfolder]
FTP/CL/FBR/BV-05-C [Set folder – subfolder]

Table 4.12: Set folder – subfolder test cases

- Test Procedure

1. Select the Server to perform initial File Transfer with on the Client.
2. Perform Bluetooth PIN exchange.
3. Perform OBEX authentication if used.
4. Start the File Transfer function.
5. Perform a change to one of the subfolders under the root folder.

- Expected Outcome

Pass verdict

Either the current subfolder is the subfolder that was selected, or if the IUT is the Server it can alternatively refuse to disclose the root folder and reply with an Unauthorized or Forbidden response. The Client needs to browse the content of the root folder in order to move through the Server's folder hierarchy to select a subfolder, but the Server IUT can refuse to disclose the root folder.

4.4.6 Set folder – subfolder – error case

- Test Purpose

Verify that moving to a sub-folder that does not exist is not allowed.

- Reference

[2] 4.2

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.
  - If the Server supports subfolders, create a root folder with subfolders.
  - The Server IUT should make every effort to be in a state where it can disclose the contents of its root folder to the Lower Tester.

- Test Case Configuration

Test Case
FTP/SR/FBR/BV-06-C [Set folder – subfolder – error case]
FTP/CL/FBR/BV-06-C [Set folder – subfolder – error case]

Table 4.13: Set folder – subfolder – error case test cases

- Test Procedure

1. Select the Server to perform initial File Transfer with on the Client.
2. Perform Bluetooth PIN exchange.

3. Perform OBEX authentication if used.
4. Start the File Transfer function.
5. When the application shows a list of subfolders in the root folder of the Server, change to a subfolder that is not in the list.

- Expected Outcome

  Pass verdict

  An error message to notify that the selected folder does not exist in the Server is generated, and the folder will not change, or the Client does not allow a non-existing folder to be selected.

  If the IUT is the Server it can alternatively refuse to disclose the root folder and reply with an Unauthorized or Forbidden response. The Client needs to browse the content of the root folder in order to move through the Server's folder hierarchy to select a subfolder, but the Server IUT can refuse to disclose the root folder.

4.4.7 Set folder – root folder

- Test Purpose

  Verify that the user can come back to the root folder from wherever the current folder is.

- Reference

  [2] 4.2

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.
  - Create several subfolders.
  - The Server IUT should make every effort to be in a state where it can disclose the contents of its root folder to the Lower Tester.

- Test Case Configuration

Test Case
FTP/SR/FBR/BV-07-C [Set folder – root folder]
FTP/CL/FBR/BV-07-C [Set folder – root folder]

Table 4.14: Set folder – root folder test cases

- Test Procedure

1. Select the Server to perform initial File Transfer with.
2. Perform Bluetooth PIN exchange.
3. Perform OBEX authentication if used.
4. Start the File Transfer function.
5. Move to a subfolder within a subfolder.
6. Perform a move back to the root folder.

- Expected Outcome

  Pass verdict

  Either the current folder is the root folder, or if the IUT is the Server it can refuse to disclose the root folder and reply with an Unauthorized or Forbidden response. The Client needs to browse the content of the root folder in order to move through the Server's folder hierarchy to select a subfolder, but the Server IUT can refuse to disclose the root folder.

4.4.8 Browse – not permitted

- Test Purpose

  Verify that moving to a subfolder that does not permit folder browsing is not allowed.

- Reference

  [2] 4.2

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.
  - Create several subfolders on the Server.

- Test Case Configuration

Test Case
FTP/SR/FBR/BV-08-C [Browse – not permitted]
FTP/CL/FBR/BV-08-C [Browse – not permitted]

Table 4.15: Browse – not permitted test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange if used.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. When the application shows a list of subfolders in the root folder of the Server, change to a subfolder that does not permit folder browsing.

- Expected Outcome

  Pass verdict

  An error message to notify that the selected folder does not permit folder browsing is generated, and the folder will not change, or the non-browsable folder is shown as empty.

- Notes

  The Server IUT has to send the error code when the selected folder does not permit folder browsing. The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a subfolder, but the Server IUT can refuse to disclose the root folder.

4.5 Object Transfer

Verify that the application supports Pushing and Pulling capabilities for files and folders. Note that not all the applications support the Pushing and Pulling capabilities for folders, but the Server has to respond with an appropriate error code.

4.5.1 Push – file

- Test Purpose

  Verify that the file is copied to the Server correctly.

- Reference

  [2] 4.3

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Create the files to push on the Client.
  - Object Exchange mode is set on the Server.
  - Make sure that the file attribute is not set as “read only” mode.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-01-C [Push – file]
FTP/CL/OTR/BV-01-C [Push – file]

Table 4.16: Push – file test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. The Client initiates a push file operation to a folder on the Server.

- Expected Outcome

  Pass verdict

  The file is copied correctly and there is no error message from the Server.

- Notes

  Notice in the verdicts that the successful transfer of a file to the Server does not necessarily imply that file can be immediately retrieved due to the protection policies enforced by the Server.

  The Client needs to browse the contents of the root folder in order to move through the Server’s folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.5.2 Push – file – Abort

- Test Purpose

  Verify that the file push operation is aborted normally.

- Reference

  [2] 4.3

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Create a large file to push on the Client.
  - Object Exchange mode is set on the Server.
  - Make sure that the file attribute is not set as “read only” mode.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-02-C [Push – file – Abort]
FTP/CL/OTR/BV-02-C [Push – file – Abort]

Table 4.17: Push – file – Abort test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. Initiate a push file to a folder on the Server.
  6. Initiate an Abort of the push file function.

- Expected Outcome

  Pass verdict

  The Client stops pushing the file.

  The Server recognizes that the file transfer is aborted.

- Notes

  The Client needs to browse the contents of the root folder in order to move through the Server’s folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.5.3 Push – file – error case

- Test Purpose

  Verify that the Server does not allow the Client to copy a file when set to read only mode.

- Reference

  [2] 4.3

- Initial Condition
  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Create some files to push on the Client.
  - Object Exchange mode is set on the Server.
  - Set the Server to “read only” mode.
- Test Case Configuration

Test Case
FTP/SR/OTR/BV-03-C [Push – file – error case]
FTP/CL/OTR/BV-03-C [Push – file – error case]

Table 4.18: Push – file – error case test cases

- Test Procedure
  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. Initiate a push file to a folder on the Server.
- Expected Outcome

  Pass verdict

  An error message is generated indicating that copying the folder is not allowed as the Server is set to read only mode.

  The file is not shown in the Client’s file-list.
- Notes

  The Client needs to browse the contents of the root folder in order to move through the Server’s folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.5.4 Push – folder

- Test Purpose

  Verify that a new folder can be created on the Server and that the folder contains files pushed by the Client.
- Reference

  [2] 4.3
- Initial Condition
  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Create the non-empty folder on the Client.

- Object Exchange mode is set on the Server.
- Make sure that the folder attribute is not “read only” mode.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-04-C [Push – folder]
FTP/CL/OTR/BV-04-C [Push – folder]

Table 4.19: Push – folder test cases

- Test Procedure

1. Select the Server to perform initial File Transfer with on the Client.
2. Perform Bluetooth PIN exchange.
3. Perform OBEX authentication if used.
4. Start the File Transfer function.
5. Create the new folder on the Client and initiate a push folder operation.

- Expected Outcome

Pass verdict

The new subfolder and the files contained in the folder are on the Server in the parent folder, and the contents are correct.

The current folder is the parent folder.

- Notes

The Server IUT must be able to respond with an appropriate error code even if it does not support the push folder capability.

The Client needs to browse the contents of the root folder in order to move through the Server’s folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

Notice in the verdicts that the successful transfer of a file to the Server does not necessarily imply that file can be immediately retrieved due to the protection policies enforced by the Server.

4.5.5 Push – folder – Abort

- Test Purpose

Verify that the push folder function is aborted normally.

- Reference

[2] 4.3

- Initial Condition

- The application for File Transfer is activated on the Client.
- The Server is selectable from a list.
- Create the non-empty folder on the Client.
- To verify the “Abort”, prepare large files in the folder on the Client.
- Object Exchange mode is set on the Server.
- Make sure that the folder attribute is not “read only” mode.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-05-C [Push – folder – Abort]
FTP/CL/OTR/BV-05-C [Push – folder – Abort]

Table 4.20: Push – folder – Abort test cases

- Test Procedure

1. Select the Server to perform initial File Transfer with on the Client.
2. Perform Bluetooth PIN exchange.
3. Perform OBEX authentication if used.
4. Start the File Transfer function.
5. Create the new folder on the Client and initiate the push folder operation.
6. Initiate an Abort of the push folder function.

- Expected Outcome

Pass verdict

The Client stops pushing the folder.

The Server recognizes that the push folder function is aborted.

- Notes

The Server IUT must be able to respond with an appropriate error code even if it does not support the push folder capability.

The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.5.6 Push – folder – not supported

- Test Purpose

Verify that the Server will respond with an appropriate error code if it does not support the push folder capability.

- Reference

[2] 4.3

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.
  - The Server does not support the push folder feature.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-06-C [Push – folder – not supported]
FTP/CL/OTR/BV-06-C [Push – folder – not supported]

Table 4.21: Push – folder – not supported test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. Create a new folder on the Client and initiate a push file operation.

- Expected Outcome

  Pass verdict

  An error code is sent to notify that the Server does not support the push folder function.

  The folder is not created on the Server.

- Notes

  The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.5.7 Push – folder – error case

- Test Purpose

  Verify that when the Server is set to read only mode, that creating a new folder and copying files to the new folder is not allowed.

- Reference

  [2] 4.3

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.
  - The Server is set to "read only" mode.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-07-C [Push – folder – error case]
FTP/CL/OTR/BV-07-C [Push – folder – error case]

Table 4.22: Push – folder – error case test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. Create the new folder on the Client and initiate a push folder operation.

- Expected Outcome

  Pass verdict

  An error message is sent to notify that creating the new folder is not allowed as the Server is set to read only mode.

  The folder is not shown in the Client's folder list.

- Notes

  The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.5.8 Pull – folder

- Test Purpose

  Verify that the folder is copied from the Server correctly by the Client.

- Reference

  [2] 4.3

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.
  - Create a non-empty folder on the Server.
  - The Server IUT should make every effort to be in a state where it can disclose the contents of its root folder to the Lower Tester.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-08-C [Pull – folder]
FTP/CL/OTR/BV-08-C [Pull – folder]

Table 4.23: Pull – folder test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. The Client initiates a pull folder function from the Server.

- Expected Outcome

  Pass verdict

  The folder in the Server is copied correctly to the Client and the files in the folder are the correct files.

  The Server IUT must be able to respond with an appropriate error code even if it does not support this capability.

If the Server IUT refuses to disclose the root folder, it replies with an Unauthorized or Forbidden response. The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

- Notes

  Notice in the verdicts that the successful transfer of a file to the Server does not necessarily imply that file can be immediately retrieved due to the protection policies enforced by the Server.

4.5.9 Pull – folder – Abort

- Test Purpose

  Verify that the pull folder function can be aborted normally.

- Reference

  [2] 4.3

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.
  - Create a non-empty folder on the Server.
  - To verify the "Abort", prepare large files in the folder on the Server.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-09-C [Pull – folder – Abort]
FTP/CL/OTR/BV-09-C [Pull – folder – Abort]

Table 4.24: Pull – folder – Abort test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. The Client initiates a pull folder function from the Server.
  6. Initiate an Abort of the pull folder function on the Client.

- Expected Outcome

  Pass verdict

  The Client stops pulling the folder.

  The Server recognizes that the pull folder function is aborted.

- Notes

  The Server IUT must be able to respond with an appropriate error code even if it does not support this capability.

The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server can refuse to disclose the root folder.

4.5.10 Pull – folder – not supported

- Test Purpose

  The Server must respond with an appropriate error code if it does not support the pull folder capability.

- Reference

  [2] 4.3

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.
  - Create the folder on the Server.
  - The Server does not support the Pull folder function.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-10-C [Pull – folder – not supported]
FTP/CL/OTR/BV-10-C [Pull – folder – not supported]

Table 4.25: Pull – folder – not supported test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. The Client initiates a pull folder function from the Server.

- Expected Outcome

  Pass verdict

  The Client is notified that accessing the folder is not allowed, and the folder is not pulled from the Server.

  An error code is sent to notify that the Server does not support this feature.

- Notes

  The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.5.11 Pull – file

- Test Purpose

  Verify that a file can be copied correctly from the Server by the Client.

- Reference

  [2] 4.3

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.
  - Prepare the file on the Server.
  - The Server IUT should make every effort to be in a state where it can disclose the contents of its root folder to the Lower Tester.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-11-C [Pull – file]
FTP/CL/OTR/BV-11-C [Pull – file]

Table 4.26: Pull – file test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. The Client pulls the file from the Server.

- Expected Outcome

  Pass verdict

  Either the selected file is copied correctly from the Server, or the Server IUT can refuse to disclose the root folder and reply with an Unauthorized or Forbidden response. The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

- Notes

  Notice in the verdicts that the successful transfer of a file to the Server does not necessarily imply that file can be immediately retrieved due to the protection policies enforced by the Server.

4.5.12 Pull – file – Abort

- Test Purpose

  Verify that the pull file function can be aborted normally.

- Reference

  [2] 4.3

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.

- Object Exchange mode is set on the Server.
- To verify the “Abort”, prepare a large file on the Server.

- Test Case Configuration

Test **Case**
FTP/SR/OTR/BV-12-C [Pull – file – Abort]
FTP/CL/OTR/BV-12-C [Pull – file – Abort]

Table 4.27: Pull – file – Abort test cases

- Test Procedure

1. Select the Server to perform initial File Transfer with on the Client.
2. Perform Bluetooth PIN exchange.
3. Perform OBEX authentication if used.
4. Start the File Transfer function.
5. The Client initiates a pull file request from the Server.
6. The Client initiates the Abort pull file function.

- Expected Outcome

Pass verdict

The Client stops pulling the file.

The Server recognizes that the pull file function is aborted.

- Notes

The Client needs to browse the contents of the root folder in order to move through the Server’s folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.5.13 Pull – large 2 MB file from the FTP Server

- Test Purpose

Verify that a large file can be correctly copied from the FTP Server to the FTP Client.

- Reference

[2] 4.3

- Initial Condition

- The application for File Transfer is activated on the Client.
- The Server is selectable from a list.
- The IUT and Lower Tester are paired.
- Enough resources are free on the Client to accept a 2 MB file.
- Object Exchange mode is set on the Server.
- A 2 MB file is on the Server and ready to be sent via FTP.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-13-C [Pull – large 2 MB file from the FTP Server]
FTP/CL/OTR/BV-13-C [Pull – large 2 MB file from the FTP Server]

Table 4.28: Pull – large 2 MB file from the FTP Server test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform OBEX authentication if used.
  3. Start the File Transfer function.
  4. Pull the 2 MB file from the Server.

- Expected Outcome

  Pass verdict

  The selected 2 MB file is copied correctly from the Server and is not altered in any way.

- Notes

  The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

  Notice in the verdicts that the successful transfer of a file to the Server does not necessarily imply that file can be immediately retrieved due to the protection policies enforced by the Server.

4.5.14 Push – large 2 MB file from the FTP Client

- Test Purpose

  Verify that a large file can be correctly copied from the FTP Client to the FTP Server.

- Reference

  [2] 4.3

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - The IUT and Lower Tester are paired.
  - A 2 MB file is on the Client and ready to be sent via FTP.
  - Object Exchange mode is set on the Server.
  - The Server is not set to "read-only" mode.
  - Enough resources are free to accept a 2 MB file on the Server.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-14-C [Push – large 2 MB file from the FTP Client]
FTP/CL/OTR/BV-14-C [Push – large 2 MB file from the FTP Client]

Table 4.29: Push – large 2 MB file from the FTP Client test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform OBEX authentication if used.
  3. Start the File Transfer function.
  4. Push the 2 MB file to the root folder of the Server.

- Expected Outcome

  Pass verdict

  The 2 MB file is copied correctly to the Server.

  No error message is received from the Server.

  The 2 MB file is not altered in any way.

- Notes

  Notice in the verdicts that the successful transfer of a file to the Server does not necessarily imply that file can be immediately retrieved due to the protection policies enforced by the Server.

  The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.5.15 Push – different file formats to the FTP Server

- Test Purpose

  Verify that different file formats can be copied correctly from the FTP Client to the FTP Server.

- Reference

  [2] 4.3

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - The IUT and Lower Tester are paired.
  - The Client has the files indicated as supported in the IXIT [6] ready to be sent via FTP.
  - Object Exchange mode is set on the Server.
  - The Server is not set to "read-only" mode.

- Test Case Configuration

Test **Case**
FTP/SR/OTR/BV-15-C [Push – different file formats to the FTP Server]
FTP/CL/OTR/BV-15-C [Push – different file formats to the FTP Server]

Table 4.30: Push – different file formats to the FTP Server test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform OBEX authentication if used.

3. Start the File Transfer function.
4. Push the supported files of different formats onto the Server. This may be done by sending one file at a time, based on the implementation.

- Expected Outcome

  Pass verdict

  The supported files of different formats are copied correctly to the Server.

  No error message is received from the Server.

  The supported files of different formats are not altered in any way.

- Notes

  Notice in the verdicts that the successful transfer of a file to the Server does not necessarily imply that file can be immediately retrieved due to the protection policies enforced by the Server.

  The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the IUT Server can refuse to disclose the root folder.

4.5.16 Push/Pull – file to/from the FTP Server

- Test Purpose

  Verify that the FTP Client can push the file to the FTP Server and pull the same file back to the FTP Client.

- Reference

  [2] 4.3

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - The IUT and Lower Tester are paired.
  - Object Exchange mode is set on the Server.
  - The Server is not set to "read-only" mode.

- Test Case Configuration

Test Case
FTP/SR/OTR/BV-16-C [Push/Pull – file to/from the FTP Server]
FTP/CL/OTR/BV-16-C [Push/Pull – file to/from the FTP Server]

Table 4.31: Push/Pull – file to/from the FTP Server test cases

- Test Procedure

1. Select the Server to perform initial File Transfer with on the Client.
2. Perform OBEX authentication if used.
3. Start the File Transfer function.
4. Push a file onto the Server.
5. Pull the same file from the Server.

- Expected Outcome

  Pass verdict

  The file is pushed correctly to the Server.

  The same file is pulled correctly from the Server.

  No error message is received from the Server.

- Notes

  Notice in the verdicts that the successful transfer of a file to the Server does not necessarily imply that file can be immediately retrieved due to the protection policies enforced by the Server.

  The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT may refuse to disclose the root folder.

4.6 Object Manipulation

Verify that the application supports creating folders and deleting files and folders. Note that not all the applications support these capabilities, but the Server has to respond with an appropriate error code.

4.6.1 Create – folder

- Test Purpose

  Verify that a new folder has been created on the Server.

- Reference

  [2] 4.4

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - The Client has proper access privileges to create the folder.
  - Object Exchange mode is set on the Server.
  - Make sure that the Server is not set to "read only" mode.

- Test Case Configuration

Test Case
FTP/SR/OMA/BV-01-C [Create – folder]
FTP/CL/OMA/BV-01-C [Create – folder]

Table 4.32: Create – folder test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. The Client performs the Create New Folder function on the Server.

- Expected Outcome

  Pass verdict

  The new folder is created in the current folder in the Server.

  The current folder is the new folder.

- Notes

  The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.6.2 Create – folder – error case

- Test Purpose

  Verify that the Server will not create a new folder when set to read only mode.

- Reference

  [2] 4.4

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.
  - The folder in which the new folder is to be created is set to read only.

- Test Case Configuration

Test Case
FTP/SR/OMA/BV-02-C [Create – folder – error case]
FTP/CL/OMA/BV-02-C [Create – folder – error case]

Table 4.33: Create – folder – error case test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. The Client performs the Create New Folder function on the Server.

- Expected Outcome

  Pass verdict

  The Client is notified that creating the folder is not allowed. The new folder is not created.

  The Server sends the Unauthorized error code (0xC1) to notify that the folder cannot be created.

- Notes

  The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.6.3 Create – folder – not supported

- Test Purpose

  The Server responds with an appropriate error code if it does not support the Create Folder function to the Client.

- Reference

  [2] 4.4

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - Object Exchange mode is set on the Server.
  - The Server does not support the Create Folder function.

- Test Case Configuration

Test Case
FTP/SR/OMA/BV-03-C [Create – folder – not supported]
FTP/CL/OMA/BV-03-C [Create – folder – not supported]

Table 4.34: Create – folder – not supported test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. The Client attempts to perform the Create New Folder function on the Server.

- Expected Outcome

  Pass verdict

  The Client is notified that creating the folder is not allowed, and the folder is not created.

  The Server sends the error code to notify that it does not support this feature.

- Notes

  The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.6.4 Delete – file

- Test Purpose

  Verify that the file is deleted.

- Reference

  [2] 4.4

- Initial Condition

  - The application for File Transfer is activated on the Client.

- The Server is selectable from a list.
- The Client has proper access privileges to delete the file.
- Object Exchange mode is set on the Server.
- Prepare the file on the Server.
- Make sure that the file is not set to “read only” mode.

- Test Case Configuration

Test Case
FTP/SR/OMA/BV-04-C [Delete – file]
FTP/CL/OMA/BV-04-C [Delete – file]

Table 4.35: Delete – file test cases

- Test Procedure

1. Select the Server to perform initial File Transfer with on the Client.
2. Perform Bluetooth PIN exchange.
3. Perform OBEX authentication if used.
4. Start the File Transfer function.
5. The Client performs the delete file function on the Server.

- Expected Outcome

Pass verdict

The selected file is deleted.

- Notes

The Server IUT must be able to respond with an appropriate error code even if it does not support this capability.

4.6.5 Delete – file – error case

- Test Purpose

Verify that the file will not be deleted when the Server is set to read only mode.

- Reference

[2] 4.4

- Initial Condition

- The application for File Transfer is activated on the Client.
- The Server is selectable from a list.
- The Client has proper access privileges to delete the empty folder.
- Object Exchange mode is set on the Server.
- Create the file on the Server.
- Set the Server to “read only” mode.

- Test Case Configuration

Test Case
FTP/SR/OMA/BV-05-C [Delete – file – error case]
FTP/CL/OMA/BV-05-C [Delete – file – error case]

Table 4.36: Delete – file – error case test cases

- Test Procedure

1. Select the Server to perform initial File Transfer with on the Client.
2. Perform Bluetooth PIN exchange.
3. Perform OBEX authentication if used.
4. Start the File Transfer function.
5. The Client performs the delete file function on the Server.

- Expected Outcome

Pass verdict

The Client receives an error message to notify that deleting the file is not allowed as the Server is set to read only mode.

The selected file is not deleted.

- Notes

The Server IUT must be able to respond with an appropriate error code even if it does not support this capability.

The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.6.6 Delete – empty folder

- Test Purpose

Verify that an empty folder in the Server can be deleted.

- Reference

[2] 4.4

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - The Client has proper access privileges to delete the empty folder.
  - Object Exchange mode is set on the Server.
  - Create the empty folder on the Server.

- Test Case Configuration

Test Case
FTP/SR/OMA/BV-06-C [Delete – empty folder]
FTP/CL/OMA/BV-06-C [Delete – empty folder]

Table 4.37: Delete – empty folder test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. Perform a delete folder function on the Server.

- Expected Outcome

  Pass verdict

  The selected folder is deleted.

- Notes

  The Server IUT must be able to respond with an appropriate error code even if it does not support this capability.

  The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.6.7 Delete – non-empty folder

- Test Purpose

  Verify that deleting a non-empty folder on the Server deletes the folder with all files and folders contained within the folder to be deleted.

- Reference

  [2] 4.4

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - The Client has proper access privileges to delete the non-empty folder.
  - Object Exchange mode is set on the Server.
  - Create the non-empty folder on the Server.

- Test Case Configuration

Test Case
FTP/SR/OMA/BV-07-C [Delete – non-empty folder]
FTP/CL/OMA/BV-07-C [Delete – non-empty folder]

Table 4.38: Delete – non-empty folder test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. The Client performs the delete folder function on the Server.

- Expected Outcome

  Pass verdict

  The non-empty folder is deleted and all files and folders contained within the selected folder are deleted.

- Notes

  The Server IUT must be able to respond with an appropriate error code even if it does not support this capability.

  The Client needs to browse the contents of the root folder in order to move through the Server's folder hierarchy to select a folder, but the Server IUT can refuse to disclose the root folder.

4.6.8 Delete – non-empty folder – not supported

- Test Purpose

  The error code "Precondition Failed" (0xCC) is sent to the Client to notify that the Server does not support this feature, and after receiving the error code, the Client deletes the files and then the folder.

- Reference

  [2] 4.4

- Initial Condition

  - The application for File Transfer is activated on the Client.
  - The Server is selectable from a list.
  - The Client has proper access privileges to delete the non-empty folder.
  - The application for File Transfer is activated.
  - A non-empty folder exists on the Server.
  - The Server does not support deleting a non-empty folder.

- Test Case Configuration

Test Case
FTP/SR/OMA/BV-08-C [Delete – non-empty folder – not supported]
FTP/CL/OMA/BV-08-C [Delete – non-empty folder – not supported]

Table 4.39: Delete – non-empty folder – not supported test cases

- Test Procedure

  1. Select the Server to perform initial File Transfer with on the Client.
  2. Perform Bluetooth PIN exchange.
  3. Perform OBEX authentication if used.
  4. Start the File Transfer function.
  5. The Client attempts to perform the delete folder function on the Server.

- Expected Outcome

  Pass verdict

  The Server sends the error code "Precondition Failed" (0xCC) to notify that the Server does not support this feature.

After receiving the error code the Client deletes the files and then the folder.

The folder is not deleted.

- Notes

  The Client sends the OBEX delete folder command as the first attempt for successful execution of this test. It may be necessary to use a Bluetooth air sniffer to verify correct OBEX operation.

5 Test case mapping

The Test Case Mapping Table (TCMT) maps test cases to specific requirements in the ICS. The IUT is tested in all roles for which support is declared in the ICS document.

The columns for the TCMT are defined as follows:

Item: Contains a logical expression based on specific entries from the associated ICS document. Contains a logical expression (using the operators AND, OR, NOT as needed) based on specific entries from the applicable ICS document(s). The entries are in the form of y/x references, where y corresponds to the table number and x corresponds to the feature number as defined in the ICS document for File Transfer Profile (FTP) [3].

Feature: A brief, informal description of the feature being tested.

Test Case(s): The applicable test case identifiers are required for Bluetooth Qualification if the corresponding y/x references defined in the Item column are supported. Further details about the function of the TCMT are elaborated in [4].

For the purpose and structure of the ICS/IXIT, refer to [4].

Item	Feature	Test Case(s)
Discovery & Connection Setup		
FTP 1/1	FTP Server SDP Service	FTP/SR/SGSIT/SERR/BV-01-C FTP/SR/SGSIT/ATTR/BV-01-C FTP/SR/SGSIT/ATTR/BV-02-C FTP/SR/SGSIT/OFFS/BV-01-C
FTP 2/26	FTP Server SDP attribute: GoepL2capPsm	FTP/SR/SGSIT/ATTR/BV-03-C
FTP 1/2	Successful Connection with future SDP Record value – FTP Client	FTP/CL/CGSIT/SFC/BV-01-C
FTP 2/1	Server Selection	FTP/SR/SSR/BV-02-C
FTP 3/2	Server Selection	FTP/CL/SSR/BV-02-C
FTP 2/1 AND FTP 2/2	Accept/Respond to List Server requests	FTP/SR/SSR/BV-01-C
FTP 3/1	Accept/Respond to List Server requests	FTP/CL/SSR/BV-01-C
FTP 2/1 AND FTP 2/2	Perform PIN Check	FTP/SR/SSR/BV-03-C
FTP 3/3	Perform PIN Check	FTP/CL/SSR/BV-03-C
Folder Browsing		
FTP 2/4	Accept/Respond to Browse folder requests (Root folder)	FTP/SR/FBR/BV-01-C
FTP 3/4	Accept/Respond to Browse folder requests (Root folder)	FTP/CL/FBR/BV-01-C
FTP 2/4a AND FTP 2/6	Accept/ Respond to browse folder requests (Sub folders)	FTP/SR/FBR/BV-02-C FTP/SR/FBR/BV-03-C
FTP 3/4	Accept/ Respond to browse folder requests (Sub folders)	FTP/CL/FBR/BV-02-C FTP/CL/FBR/BV-03-C
FTP 2/4a AND FTP 2/5	Accept Set folder requests	FTP/SR/FBR/BV-06-C
FTP 3/5	Accept Set folder requests	FTP/CL/FBR/BV-06-C

Item	Feature	Test Case(s)
FTP 2/4a AND FTP 2/6	Accept Set folder requests (Sub folder)	FTP/SR/FBR/BV-04-C FTP/SR/FBR/BV-05-C FTP/SR/FBR/BV-07-C
FTP 3/5	Accept Set folder requests (Sub folder)	FTP/CL/FBR/BV-04-C FTP/CL/FBR/BV-05-C FTP/CL/FBR/BV-07-C
FTP 2/5 AND FTP 2/6 AND FTP 2/9	Support non-browsable folder	FTP/SR/FBR/BV-08-C
FTP 3/5	Support non-browsable folder	FTP/CL/FBR/BV-08-C
Object Transfer		
FTP 2/10	Accept Push file requests	FTP/SR/OTR/BV-01-C FTP/SR/OTR/BV-02-C FTP/SR/OTR/BV-14-C
FTP 3/6	Accept Push file requests	FTP/CL/OTR/BV-01-C FTP/CL/OTR/BV-02-C FTP/CL/OTR/BV-14-C
FTP 2/10	Accept Push file requests	FTP/SR/OTR/BV-15-C
FTP 3/6	Accept Push file requests	FTP/CL/OTR/BV-15-C
FTP 2/8 AND FTP 2/10	Support read-only files	FTP/SR/OTR/BV-03-C
FTP 3/6	Support read-only files	FTP/CL/OTR/BV-03-C
FTP 2/11	Accept Push folder requests	FTP/SR/OTR/BV-04-C FTP/SR/OTR/BV-05-C
FTP 3/7	Accept Push folder requests	FTP/CL/OTR/BV-04-C FTP/CL/OTR/BV-05-C
FTP 1/1 AND NOT FTP 2/11	Accept Push folder requests	FTP/SR/OTR/BV-06-C
FTP 3/7	Accept Push folder requests	FTP/CL/OTR/BV-06-C
FTP 2/8 AND FTP 2/11	Support read-only folders	FTP/SR/OTR/BV-07-C
FTP 3/7	Support read-only folders	FTP/CL/OTR/BV-07-C
FTP 2/12	Accept Pull folder requests	FTP/SR/OTR/BV-08-C FTP/SR/OTR/BV-09-C
FTP 3/8	Accept Pull folder requests	FTP/CL/OTR/BV-08-C FTP/CL/OTR/BV-09-C
FTP 2/4a AND NOT FTP 2/12	Accept Pull folder requests	FTP/SR/OTR/BV-10-C
FTP 3/8	Accept Pull folder requests	FTP/CL/OTR/BV-10-C
FTP 2/13	Accept Pull file requests	FTP/SR/OTR/BV-11-C FTP/SR/OTR/BV-12-C FTP/SR/OTR/BV-13-C
FTP 3/9	Accept Pull file requests	FTP/CL/OTR/BV-11-C FTP/CL/OTR/BV-12-C FTP/CL/OTR/BV-13-C
FTP 2/10 AND FTP 2/13	Accept Push file requests/Accept Pull file requests	FTP/SR/OTR/BV-16-C

Item	Feature	Test Case(s)
FTP 3/6 AND FTP 3/9	Accept Push file requests/Accept Pull file requests	FTP/CL/OTR/BV-16-C
Object Manipulation		
FTP 2/14	Accept Create folder request	FTP/SR/OMA/BV-01-C
FTP 3/10	Accept Create folder request	FTP/CL/OMA/BV-01-C
FTP 2/8 AND FTP 2/14	Support read-only folders	FTP/SR/OMA/BV-02-C
FTP 3/10	Support read-only folders	FTP/CL/OMA/BV-02-C
FTP 2/14	Accept Create folder request	FTP/SR/OMA/BV-03-C
FTP 3/10	Accept Create folder request	FTP/CL/OMA/BV-03-C
FTP 2/15	Accept Delete file requests	FTP/SR/OMA/BV-04-C
FTP 3/11	Accept Delete file requests	FTP/CL/OMA/BV-04-C
FTP 2/7 AND FTP 2/15	Support read-only files	FTP/SR/OMA/BV-05-C
FTP 3/11	Support read-only files	FTP/CL/OMA/BV-05-C
FTP 2/16	Accept Delete folder requests	FTP/SR/OMA/BV-06-C
FTP 3/12a OR FTP 3/12b	Accept Delete folder requests	FTP/CL/OMA/BV-06-C
FTP 2/17	Delete non-empty folders	FTP/SR/OMA/BV-07-C
FTP 3/12a OR FTP 3/12b	Delete non-empty folders	FTP/CL/OMA/BV-07-C
FTP 2/16 AND NOT FTP 2/17	Delete non-empty folders	FTP/SR/OMA/BV-08-C
FTP 3/12a	Delete non-empty folders	FTP/CL/OMA/BV-08-C
GOEP 2.0 or later tests		
FTP 2/10 AND FTP 2/27	PUT response to a legacy device (OBEX over RFCOMM is used)	FTP/SR/GOEP/BC/BV-01-C
FTP 3/6 AND FTP 3/22	PUT request to a legacy device (OBEX over RFCOMM is used)	FTP/CL/GOEP/BC/BV-02-C
FTP 2/13 AND FTP 2/27	GET response to a legacy device (OBEX over RFCOMM is used)	FTP/SR/GOEP/BC/BV-03-C
FTP 3/9 AND FTP 3/22	GET request to a legacy device (OBEX over RFCOMM is used)	FTP/CL/GOEP/BC/BV-04-C
FTP 3/21 AND FTP 3/23	OBEX CONNECT request – OBEX over L2CAP	FTP/CL/GOEP/CON/BV-01-C
FTP 2/26 AND FTP 2/28	OBEX CONNECT request – OBEX over L2CAP	FTP/SR/GOEP/SRM/BI-03-C
FTP 3/24	Reliable OBEX Session	FTP/CL/GOEP/RLS/BV-01-C FTP/CL/GOEP/RLS/BV-04-C FTP/CL/GOEP/RLS/BV-05-C
FTP 3/6 AND FTP 3/24	Suspend/Resume a PUT operation when SRM is disabled	FTP/CL/GOEP/RLS/BV-09-C
FTP 3/9 AND FTP 3/24	Suspend/Resume a GET operation when SRM is disabled.	FTP/CL/GOEP/RLS/BV-10-C

Item	Feature	Test Case(s)
FTP 2/29	Reliable OBEX session	FTP/SR/GOEP/RLS/BV-02-C FTP/SR/GOEP/RLS/BV-03-C FTP/SR/GOEP/RLS/BV-06-C FTP/SR/GOEP/RLS/BV-08-C
FTP 2/10 AND FTP 2/29	Suspend/Resume of PUT operation with SRM disabled	FTP/SR/GOEP/RLS/BV-11-C
FTP 2/13 AND FTP 2/29	Suspend/Resume of GET operation with SRM disabled	FTP/SR/GOEP/RLS/BV-12-C
FTP 3/6 AND FTP 3/25	PUT request – SRM enabled	FTP/CL/GOEP/SRM/BV-01-C FTP/CL/GOEP/SRM/BV-03-C
FTP 3/9 AND FTP 3/25	GET request – SRM enabled	FTP/CL/GOEP/SRM/BV-05-C
FTP 2/10 AND FTP 2/30	PUT response – SRM enabled	FTP/SR/GOEP/SRM/BV-04-C FTP/SR/GOEP/SRM/BI-02-C
FTP 2/13 AND FTP 2/30	GET response – SRM enabled	FTP/SR/GOEP/SRM/BV-08-C FTP/SR/GOEP/SRM/BI-05-C
FTP 3/9 AND FTP 3/25	GET request – SRM enabled	FTP/CL/GOEP/SRM/BV-07-C
FTP 3/6 AND FTP 3/25 AND FTP 3/27	PUT request – SRM enabled and receive a SRMP wait header	FTP/CL/GOEP/SRMP/BV-01-C
FTP 2/13 AND FTP 2/30 AND FTP 2/32	GET response – SRM enabled and receive a SRMP wait header	FTP/SR/GOEP/SRMP/BV-02-C
FTP 2/10 AND FTP 2/30 AND FTP 2/31	PUT response – SRM enabled and send a SRMP wait header	FTP/SR/GOEP/SRMP/BV-03-C
FTP 3/9 AND FTP 3/25 AND FTP 3/26	GET request – SRM enabled and send a SRMP wait header	FTP/CL/GOEP/SRMP/BV-04-C
(FTP 3/8 OR FTP 3/9) AND FTP 3/25 AND FTP 3/26 AND FTP 3/27	GET request – SRM enabled and send and receive a SRMP wait header	FTP/CL/GOEP/SRMP/BV-05-C
(FTP 3/8 OR FTP 3/9) AND FTP 3/25 AND FTP 3/27	GET request – SRM enabled and receive a SRMP wait header	FTP/CL/GOEP/SRMP/BV-06-C
FTP 3/9 AND FTP 3/25 AND FTP 3/27	GET request – SRM enabled and an invalid SRMP wait header	FTP/CL/GOEP/SRMP/BI-01-C
FTP 2/13 AND FTP 2/30 AND FTP 2/32	GET response – SRM enabled and an invalid SRMP wait header	FTP/SR/GOEP/SRMP/BI-02-C
FTP 3/6 AND FTP 3/24 AND FTP 3/25	Suspend/Resume a PUT operation when SRM is enabled	FTP/CL/GOEP/SRS/BV-01-C
FTP 3/9 AND FTP 3/24 AND FTP 3/25	Suspend/Resume a GET operation when SRM is enabled	FTP/CL/GOEP/SRS/BV-02-C
FTP 2/10 AND FTP 2/29 AND FTP 2/30	Accept a Suspend/Resume of PUT operation with SRM enabled	FTP/SR/GOEP/SRS/BV-03-C
FTP 2/13 AND FTP 2/29 AND FTP 2/30	Accept a Suspend/Resume of PUT operation with SRM enabled	FTP/SR/GOEP/SRS/BV-04-C

Item	Feature	Test Case(s)
FTP 3/17	COPY command	FTP/CL/GOEP/ACT/BV-01-C
FTP 2/22	Process a COPY command	FTP/SR/GOEP/ACT/BV-02-C
FTP 3/13 OR FTP 3/15	MOVE/RENAME command	FTP/CL/GOEP/ACT/BV-03-C
FTP 2/18 OR FTP 2/20	Process a MOVE/RENAME command	FTP/SR/GOEP/ACT/BV-04-C
FTP 3/19	SET PERMISSIONS command	FTP/CL/GOEP/ACT/BV-05-C
FTP 2/24	Process a SET PERMISSIONS command	FTP/SR/GOEP/ACT/BV-06-C
FTP 1/1 AND NOT (FTP 2/18 OR FTP 2/19 OR FTP 2/20 OR FTP 2/21 OR FTP 2/22 OR FTP 2/23 OR FTP 2/24 OR FTP 2/25)	Action commands not supported	FTP/SR/GOEP/ROB/BV-01-C
FTP 1/1 AND NOT FTP 2/29	Reliable Sessions not supported	FTP/SR/GOEP/ROB/BV-02-C

Table 5.1: Test case mapping

6 Revision history and acknowledgments

Revision History

Publication Number	Revision Number	Date	Comments
0	1.1	2001-07-02	First version for Specification 1.1
	1.1b	2002-11-13	Includes Test_Spec_PartK12_FTP_1_1_Addendum_Sep02
1	1.1.1	2004-12-17	Incorporated September 2002 Addendum: TSE 567 for TP/OMA/BV-08-I. TSE 593 for TCMT entries for TP/FBR/BV-02-I, TP/FBR/BV-03-I, TP/FBR/BV-04-I, TP/FBR/BV-05-I, TP/FBR/BV-06-I, TP/FBR/BV-07-I, and TP/OTR/BV-10-I. TSE 596 for TCMT for TP/OTR/BV-10-I. TSE 674 for TCMT for TP/OTR/BV-03-I. TSE 675 for TCMT for TP/FBR/BV-01-I, TP/FBR/BV-02-I, TP/FBR/BV-03-I, TP/FBR/BV-04-I, TP/FBR/BV-05-I, TP/FBR/BV-06-I, TP/FBR/BV-07-I and TP/FBR/BV-08-I. Made format and editorial changes.
	1.1.2r0	2005-08-26	TSE 804:TCMT TP/FBR/BV-08-I TSE 805:TCMT TP/OTR/BV-10-I
2	1.1.2r1	2005-09-26	Accept ME review comments
3	1.1.3	2007-01-08	Added Conformance Section 4.1.1 Miscellaneous reformatting. TSE 1840: TMCT changes for TP/FBR/BV-02-I and TP/FBR/BV-03-I TSE 1874: updates Notes in TP/OMA/BV-07-I; update TCMT for TP/OMA/BV-06-I, TP/OMA/BV-07-I, TP/OMA/BV-08-I
4	1.1.4	2007-08-28	TSE 2109 Change name of TP/FBR/BV-08-I TSE 2297: Update Client verdict for TP/FBR/BV-08-I and TP/FBR/BV-06-I TSE 2280: Correct TCMT
5	1.1.5r0	2008-09-01	TSE 2534: New Test case TP/OTR/BV-13-I TSE 2535: New Test case TSE 2536: New Test case TSE 2537: New Test case
6	1.2.0r0-1.2.0r2	2010-03-02 - 2010-08-09	TSE 2971: TP/OMA/BV-02-I: update pass verdict Updated TCMT for updated OBEX Added TCMT entries for new OBEX work Updated Conformance section.
7	1.2.1r0	2011-10-15	TSE 4168: TP/OTR/BV-15-I: text related PIXIT/file formats TSE 4299: TP/OTR/BV-16-I: TCMT update Removed descriptions from test case IDs in TCMT
	1.3.0r0	2012-06-13	Updated versioning to accommodate FTP_SPEC_v1.3

Publication Number	Revision Number	Date	Comments
8	1.3.0	2012-07-24	Prepare for publication.
	1.3.1r1	2012-11-15	TSE 5013: Added FTP 1b/3 and 2b/3 to the TCMT where 1b/2 and 2b/2 appear so the test cases also map to FTP v.1.3.
9	1.3.1	2012-11-19	Prepare for Publication
	1.3.2r1	2013-04-26	TSE 5030: Edits to TCMT for server and client role test cases. Updated TCMT mapping for TP/SSR/BV-03-I from "(2/1 AND OR 3/3 " to "(2/1 AND 2/2) OR 3/3" Updated TCMT mapping for TP/OTR/BV-10-I to "(2/4a AND NOT 2/12) OR 3/8" Updated TCMT mapping for TP/BC/BV-02-I to "2b/2 OR 2b/3) AND 3/6 AND 3/22" added description Updated TCMT mapping for TP/BC/BV-03-I, to "(1b/2 OR 1/b3) AND 2/13 AND 2/27", added description Updated TCMT mapping for TP/BC/BV-04-I to "(2b/2 OR 2b/3) AND 3/9 AND 3/22", added description Added TCMT descriptions to TP/BC/BV-01-I, TP/CON/BV-01-C, TP/CON/BV-02-C, TP/SRM/BI-03-C, TP/RLS/BV-01-C, TP/RLS,BV-04-C, TP/RLS/BV-05-C, TP/RLS/BV-10-C, TP/RLS/BV-02-C, TP/RLS/BV-03-C, TP/RLS/BV-06-C, TP/RLS/BV-08-C, TP/RLS/BV-11-C, TP/RLS/BV-12-C, TP/SRM/BV-01-C, TP/SRM/BV-03-C, TP/SRM/BV-05-C, TP/SRM/BV-04-C, TP/SRM/BI-02-C, TP/SRM/BV-08-C, TP/SRM/BI-05-C, TP/SRM/BV-07-C, TP/SRMP/BV-01-C, TP/SRMP/BV-02-C, TP/SRMP/BV-03-C, TP/SRMP/BV-04-C, TP/SRMP/BV-05-C, TP/SRMP/BV-06-C, TP/SRMP/BI-01-C, TP/SRMP/BI-02-C, TP/SRS/BV-01-C, TP/SRS/BV-02-C, TP/SRS/BV-03-C, TP/SRS/BV-04-C, TP/ACT/BV-01-C, TP/ACT/BV-02-C, TP/ACT/BV-03-C, TP/ACT/BV-04-C, TP/ACT/BV-05-C, TP/ACT/BV-06-C, TP/ROB/BV-01-C, and TP/ROB/BV-02-C. Deleted extra rows in TCMT that were empty
10	1.3.2	2013-07-02	Prepare for Publication
	1.3.1.0r00	2015-10-28	Updated version numbering to align with Specification version change from 1.3 to 1.3.1 for ESR09. With the specification taking a third identifying number, the TS version identifier moves to the fourth number and starts again at 0.
11	1.3.1.0	2015-12-22	Prepared for TCRL 2015-2 publication
	1.3.1.1r00	2017-03-03	TSE 8692: Updated Test Spec Template and miscellaneous editorials
	1.3.1.1r01	2017-04-27	Converted to new Test Case ID conventions as defined in TSTO v4.1
12	1.3.1.1	2017-07-03	Approved by BTI. Prepared for TCRL 2017-1 publication.

Publication Number	Revision Number	Date	Comments
	1.3.1.2r00	2017-08-18	TSE 9586: Fixed FTP/SR/GOEP/CON/BV-02-C and FTP/SR/GOEP/SRM/BI-03-C names in the TCMT that were incorrectly labeled as Client tests.
	1.3.1.2r01	2017-09-01	TSE 9357FTP/SR/FBR/BV-01-I: added initial condition for Server role; added a Server role pass verdict with an alternative for Server IUT's that choose to not disclose the contents of the root folder; and removed the notes. FTP/SR/FBR/BV-02-I, FTP/SR/FBR/BV-03-I, FTP/SR/FBR/BV-04-I, FTP/SR/FBR/BV-05-I, FTP/SR/FBR/BV-06-I, FTP/SR/FBR/BV-07-I: added initial condition for Server role; added a Server role pass verdict with an alternative for Server IUT's that choose to not disclose the contents of the root folder; and incorporated the notes into the Server pass verdict. FTP/SR/OTR/BV-08-I, FTP/SR/OTR/BV-11-I: added initial condition for Server role; added a Server role pass verdict with an alternative for Server IUT's that choose to not disclose the contents of the root folder; and moved applicable portions from the notes into the Server pass verdict but otherwise left the notes as-is.
	1.3.1.2r02	2017-09-06	Editorial change to remove a url ftp hyperlink in the FTP/CL/GOEP/BC/BV-02-I logical expression in the TCMT.
13	1.3.1.2	2017-11-28	Approved by BTI. Prepared for TCRL 2017-2 publication.
	p14r00–r10	2023-10-19 – 2024-04-26	TSE 23932 (rating 1): Converted -I tests to -C tests as appropriate; updated the TCMT and TCRL accordingly. TSE 24525 (rating 4): Added new GSIT section with new TCs FTP/CL/CGSIT/SFC/BV-01-C, FTP/SR/SGSIT/SERR/BV-01-C, FTP/SR/SGSIT/ATTR/BV-01-C – -03-C, and FTP/SR/SGSIT/OFFS/BV-01-C. Updated the TCMT accordingly, including removing FTP/SR/GOEP/CON/BV-02-C. Added the SDP TS and GOEP TS to the references list, updated the test groups list, and modified the TC Conventions section. TSE 24604 (rating 2): Updated the TCMT entries for all of the GOEP 2.0 TCs to address deprecated versions. Updated document to align with latest standards.
14	p14	2024-07-01	Approved by BTI on 2024-05-22. Prepared for TCRL 2024-1 publication.

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