

CLAIMS

1. System for transmission and processing of files, such as files involved in a printing process, which files are generated by a first user (7) at a first client station (10), which
5 first client station (10) is connected by a first computer network such as a Local Area Network (LAN) (4) to one or more local servers (6), which first server (6) performs communication to a number of computer systems (10a-n) connected to the first LAN (4), **characterized in** that the first local server (6) generates and transmits via the internet (20) at least one meta data file related to at least one file stored in a data cache
10 (8) to at least one Master Server Unit (MSU) (26), which MSU (26) is part of a corporate or public data centre (CDC) (24), to which CDC (24) a number of second servers (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) are communicating and receives the meta data file, which first user (7) or a number of users (7,7a-n) can access the meta data file related to the file by any client station (12,42a-n) by any LAN connection to any of
15 the second servers (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n), which system (2) based on a user request and upon authorisation of the user or users performs transmission of the file from the first server (6) via the internet (20) and the MSU (26) towards the client station operated by the user (7,7a-n), and request transfer of the file or files for local processing and wherein the servers (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n)
20 communicates by a communication system, such as a LAN, to and from an identity database (12), and wherein the data cache (8) in the servers (6, 34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) receives configuration data or control data from the MSU (26).
2. System according to claim 1, **characterized in** the system is a system for spooling
25 documents for printing.
3. System according to claim 1 or 2 **characterized in** that the files are digital documents produced by a scanning process.
- 30 4. System according to claim 1 or 2 **characterized in** that the files are digital documents submitted to the system by a user from multi function printer device.

5. System according to claim 1 or 2 **characterized in** that the files are digital pictures.

6. System according to one of the claims 1-5, **characterized in** that the server (6) comprises a data cache (8) and performs a spool process, which data cache (8) receives spooled document file generated at the client station (10,10a-n).

7. System according to one of the claims 1-6, **characterized in** that the communication to and from the first server (6) to and from the MSU (26) is encrypted and authenticated at both ends.

8. System according to one of the claims 1-7, **characterized in** that the communication to and from the server (6) to and from the MSU (26) is asynchronous.

9. System according to one of the claims 1-8, **characterized in** that the user(s) (7,7a-n) have access in a roaming mode to any second server (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n), which second server (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) recognizes the user(s) (7,7a-n) access, the second server(s) (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) request the MSU (26) for transmission of the file from the first server (6) when the user or users (7,7a-n) are connected.

10. System according to claim 9, **characterized in** that the user or users (7, 7a-n) has access to the meta data file at any server (6, 34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) related to the file, which user or users (7, 7a-n) by authorization downloads the file to the actual client station (42, 42a-n) or printer system (16, 18).

11. Method for secure transmission of files by a system as disclosed in one of the claims 1-12, which method comprises the following steps:

- a. A first user (7) generates a file at a first client station (10),
- b. which first client station (10) transmits the file by a first LAN (4) to a first server (6)
- c. performs a storing process at the first server (6) connected to the first LAN (4),
- d. which first server (6) generates and transmits at least one meta data file related to the stored file via the internet to one or more MSU (26), which MSU is part of a cor-

porate or public data centre (CDC) to which CDC a number of second servers (34, 34a-n, 36, 36a-n, 38, 38a-n, 40, 40a-n) are communicating, e. which MSU (26), upon request and authentication of the user in the identity database (12) at the first server (6), gives access to the file to any second server (34, 34a-n, 36, 36a-n, 38, 38a-n, 40, 40a-n) sending the authentication information related to the meta data file,

5 f. which system transmits the stored file from the data cache (8) in the first server (6) via the internet to the actual second server (34, 34a-n, 36, 36a-n, 38, 38a-n, 40, 40a-n),

h. transmit the file from the second server (34, 34a-n, 36, 36a-n, 38, 38a-n, 40, 40a-n) by a communication system such as a LAN to a second client station (42, 42a-n) or computer system.

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14. Method according to claim 13, **characterized in** perform storing of the spooled file in a data cache (8) storage in the first server (6).

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1. System for transmission and processing of files, such as files involved in a printing process, which files are generated by a first user (7) at a first client station (10), which first client station (10) is connected by a first computer network such as a Local Area Network (LAN) (4) to one or more local servers (6), which first server (6) performs communication to a number of computer systems (10a-n) connected to the first LAN (4), **characterized in** that the first local server (6) generates and transmits via the internet (20) at least one meta data file related to at least one file stored in a data cache (8) to at least one Master Server Unit (MSU) (26), which MSU (26) is part of a corporate or public data centre (CDC) (24), to which CDC (24) a number of second servers (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) are communicating and receives the meta data file, which first user (7) or a number of users (7,7a-n) can access the meta data file related to the file by any client station (42,42a-n) by any LAN connection to any of the second servers (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n), which system (2) based on a user request and upon authorisation of the user or users performs transmission of the file from the first server (6) via the internet (20) and the MSU (26) towards the client station operated by the user (7,7a-n), and request transfer of the file or files for local processing and wherein the servers (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) communicates by a communication system, such as a LAN, to and from an identity database (12), and wherein the data cache (8) in the servers (6, 34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) receives configuration data or control data from the MSU (26).
2. System according to claim 1, **characterized in** the system is a system for spooling documents for printing.
3. System according to claim 1 or 2 **characterized in** that the files are digital documents produced by a scanning process.
4. System according to claim 1 or 2 **characterized in** that the files are digital documents submitted to the system by a user from multi function printer device.

5. System according to claim 1 or 2 **characterized in** that the files are digital pictures.

6. System according to one of the claims 1-5, **characterized in** that the server (6) comprises a data cache (8) and performs a spool process, which data cache (8) receives spooled document file generated at the client station (10,10a-n).

7. System according to one of the claims 1-6, **characterized in** that the communication to and from the first server (6) to and from the MSU (26) is encrypted and authenticated at both ends.

8. System according to one of the claims 1-7, **characterized in** that the communication to and from the server (6) to and from the MSU (26) is asynchronous.

9. System according to one of the claims 1-8, **characterized in** that the user(s) (7,7a-n) have access in a roaming mode to any second server (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n), which second server (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) recognizes the user(s) (7,7a-n) access, the second server(s) (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) request the MSU (26) for transmission of the file from the first server (6) when the user or users (7,7a-n) are connected.

10. System according to claim 9, **characterized in** that the user or users (7, 7a-n) has access to the meta data file at any server (6, 34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) related to the file, which user or users (7, 7a-n) by authorization downloads the file to the actual client station (42, 42a-n) or printer system (16, 18).

11. Method for secure transmission of files by a system as disclosed in one of the claims 1-10, which method comprises the following steps:

- a. A first user (7) generates a file at a first client station (10),
- b. which first client station (10) transmits the file by a first LAN (4) to a first server (6)
- c. performs a storing process at the first server (6) connected to the first LAN (4),
- d. which first server (6) generates and transmits at least one meta data file related to the stored file via the internet to one or more MSU (26), which MSU is part of a cor-

porate or public data centre (CDC) to which CDC a number of second servers (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) are communicating,

5 e. which MSU (26), upon request and authentication of the user in the identity database (12) at the first server (6), gives access to the file to any second server (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) sending the authentication information related to the meta data file,

f. which system transmits the stored file from the data cache (8) in the first server (6) via the internet to the actual second server (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n),

10 h. transmit the file from the second server (34, 34a-n, 36,36a-n, 38,38a-n,40, 40a-n) by a communication system such as a LAN to a second client station (42, 42a-n) or computer system.

12. Method according to claim 11, **characterized in** perform storing of the spooled file in a data cache (8) storage in the first server (6).