EXHIBIT 2

US007899187B2

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Messerges et al.

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(54) **DOMAIN-BASED DIGITAL-RIGHTS MANAGEMENT SYSTEM WITH EASY AND SECURE DEVICE ENROLLMENT**

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(51) **Int. Cl.**
H04L 9/00 (2006.01)
(52) **U.S. Cl.** **380/279**
(58) **Field of Classification Search** 380/277–279, 380/270, 281, 282, 283; 713/156, 155, 164, 713/167, 171, 172
See application file for complete search history.

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(57) **ABSTRACT**

New devices (**101**) are added to an existing domain by obtaining domain information (e.g., domain name and private domain password) from devices (**101**) already in the domain that preferably are in close proximity. Once the domain information has been transferred from the device already in the domain to the device being added to the domain, the device being added to the domain contacts a key issuer (**105**) to complete its registration into the domain. The key issuer returns a DRM domain private key (**206**) as well as a DRM certificate (**202**). Both are utilized by the device to obtain and render digital content (**204**).

17 Claims, 2 Drawing Sheets
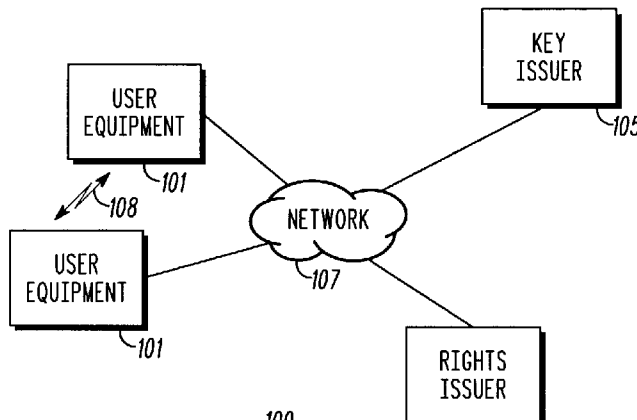
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Page 2

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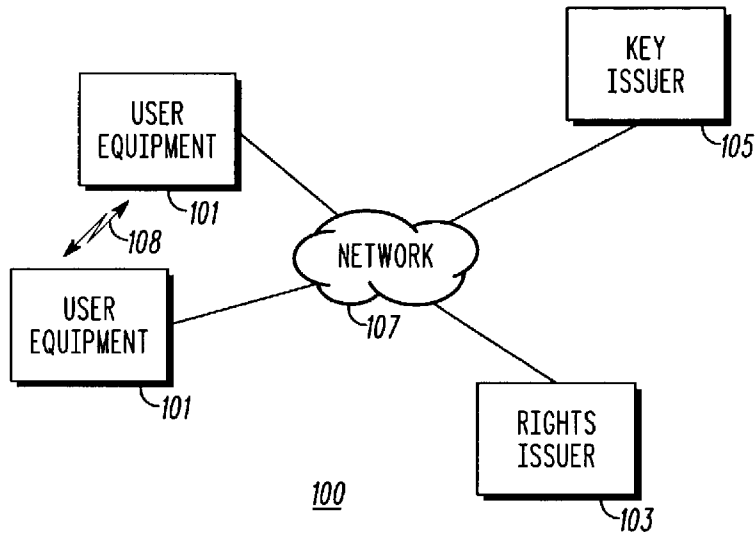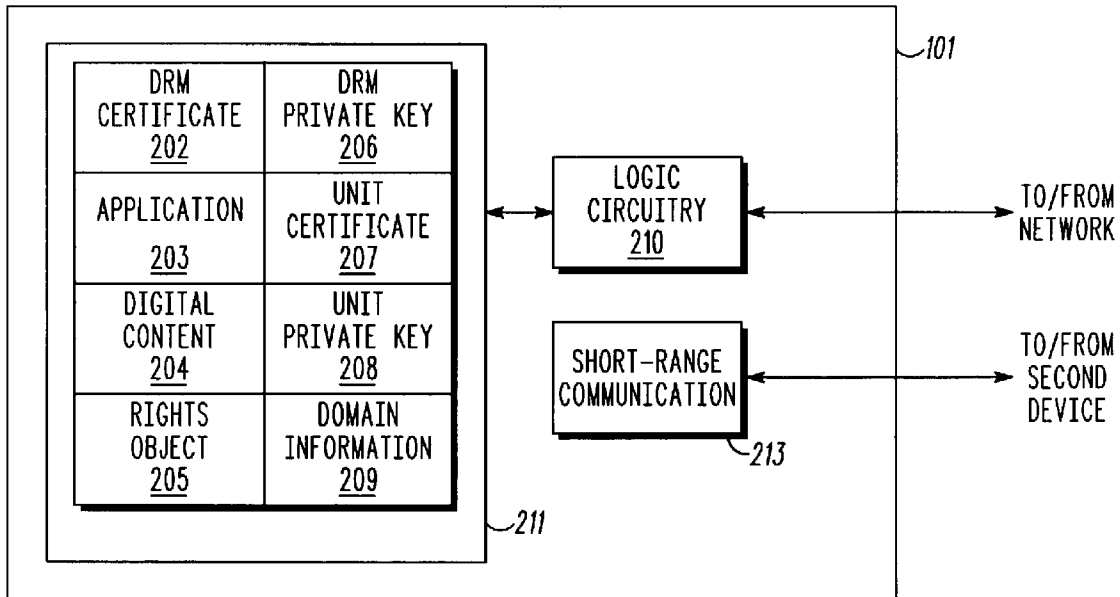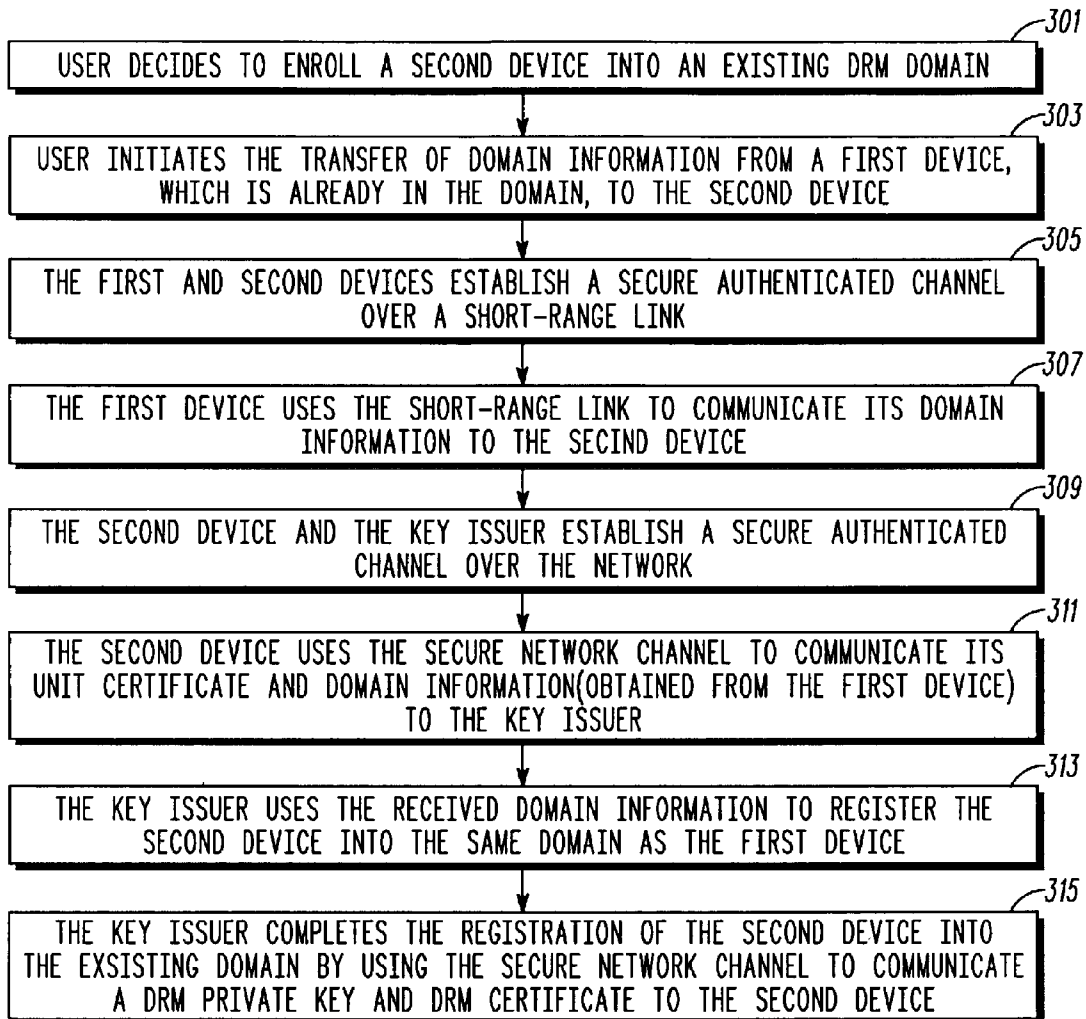
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FIG. 1

FIG. 2

301
| USER DECIDES TO ENROLL A SECOND DEVICE INTO AN EXISTING DRM DOMAIN |

303
| USER INITIATES THE TRANSFER OF DOMAIN INFORMATION FROM A FIRST DEVICE, WHICH IS ALREADY IN THE DOMAIN, TO THE SECOND DEVICE |

305
| THE FIRST AND SECOND DEVICES ESTABLISH A SECURE AUTHENTICATED CHANNEL OVER A SHORT-RANGE LINK |

307
| THE FIRST DEVICE USES THE SHORT-RANGE LINK TO COMMUNICATE ITS DOMAIN INFORMATION TO THE SECIND DEVICE |

309
| THE SECOND DEVICE AND THE KEY ISSUER ESTABLISH A SECURE AUTHENTICATED CHANNEL OVER THE NETWORK |

311
| THE SECOND DEVICE USES THE SECURE NETWORK CHANNEL TO COMMUNICATE ITS UNIT CERTIFICATE AND DOMAIN INFORMATION(OBTAINED FROM THE FIRST DEVICE) TO THE KEY ISSUER |

313
| THE KEY ISSUER USES THE RECEIVED DOMAIN INFORMATION TO REGISTER THE SECOND DEVICE INTO THE SAME DOMAIN AS THE FIRST DEVICE |

315
| THE KEY ISSUER COMPLETES THE REGISTRATION OF THE SECOND DEVICE INTO THE EXSISTING DOMAIN BY USING THE SECURE NETWORK CHANNEL TO COMMUNICATE A DRM PRIVATE KEY AND DRM CERTIFICATE TO THE SECOND DEVICE |

FIG. 3

401
| DETERMINE THAT DOMAIN INFORMATION IS BEING TRANSFERRED TO DEVICE |

403
| DETERMINE TRANSMISSION MEANS |

407   405   409
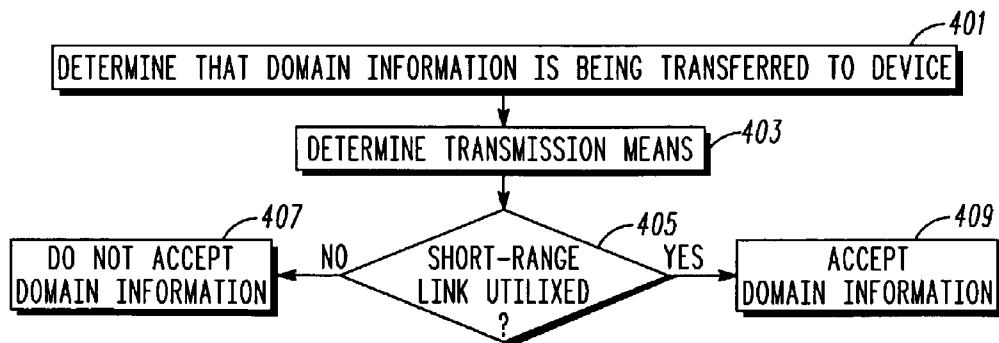| DO NOT ACCEPT DOMAIN INFORMATION | NO   SHORT-RANGE LINK UTILIXED ?   YES | ACCEPT DOMAIN INFORMATION |

FIG. 4

DOCKET ALARM

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