

Special Transaction Types:

Release	Version	Type	Payload Size	Payload	Payload JSON	Transaction Purpose
v0.13.0	3	0	n/a	n/a	n/a	Standard Transaction
v0.13.0	3	1	<variable int>	<hex>	proRegTx	Masternode Registration
v0.13.0	3	2	<variable int>	<hex>	proUpServTx	Update Masternode Service
v0.13.0	3	3	<variable int>	<hex>	proUpRegTx	Update Masternode Operator
v0.13.0	3	4	<variable int>	<hex>	proUpRevTx	Masternode Revocation
v0.13.0	3	5	<variable int>	<hex>	cbTx	Masternode List Merkle Proof
v0.13.0	3	6	<variable int>	<hex>	qcTx	Quorum Commitment

Dash v0.13.0 Integration Notes:

1. [DIP-002: Special Transactions](#) are a foundational component of Dashcore v0.13.0 and introduce a new Transaction Version and related “Payload” to the network.
2. Integrated Systems must be able to [serialize and deserialize](#) these new Transaction Types in order to accurately encode and decode Raw Transaction data.
3. From a [backwards compatibility](#) perspective, the 4 byte (32-bit) “version” field included in Legacy Transactions has been split into two fields: “version” and “type” (each consisting of 2 bytes).
4. [InstantSend](#) status and Payload JSON (e.g. “proRegTx”) is included in the JSON-RPC response, please note that this data is not part of the calculated hash and is provided for convenience.

Dash v0.13.0 Transaction Structure:

Legacy Transaction Structure:	Updated Transaction Structure:
<pre>{ "txid": <string>, "size": <int>, "version": 2, "locktime": 0, "vin": [], "vout": [...] }</pre>	<pre>{ "txid": <string>, "size": <int>, "version": 3, "type": <int>, "locktime": 0, "vin": [...], "vout": [...], "extraPayloadSize": <variable int>, "extraPayload": ... }</pre>

See [Special Transactions](#) for additional detail on these data types, e.g. <variable int>.

Provider Registration Transaction ([ProRegTx](#))

Feature: [DIP 003: Deterministic Masternode List](#)

Purpose: Records the registration of a Masternode on the network.

Scope: v13.0

Transaction Type: 1

Transaction Structure:

```
{
  "txid": <string>,
  "size": <int>,
  "version": 3,
  "type": 1,
  "locktime": 0,
  "vin": [ ... ],
  "vout": [ ... ],
  "extraPayloadSize": <variable int>,
  "extraPayload": ...
}
```

Raw Transaction Hex:

```
030001000126d3cb36b5360a23f5f4a2ea4c98d385c0c7a80788439f52a237717d799356a6000000006b48304502210
0b025cd823cf6b746e97a1e5657c1c6f150bc63530734b1c5dacef2cfad53a8ea022073d0801e18a082eaae70838f2cfc
19c78b88b879af7d3e42023d61852ad289e701210222865251150a58f0f89602cb812046cc38c84d67e3dc74edb9061
aaed19c2bdefefffff0143c94fbb000000001976a9145cbfea4a74cfb5f801f2cbaf38a9bac7ebbb0e88ac00000000fd12
010100000000026d3cb36b5360a23f5f4a2ea4c98d385c0c7a80788439f52a237717d799356a6010000000000000000
0000000000fffc38d008f4e1f8a94fb062049b841f716dcded8257a3632fb053c8273ec203d1ea62cbdb54e10618329e
4ed93e99bc9c5ab2f4cb0055ad281f9ad0808a1dda6aedf12c41c53142828879b8a94fb062049b841f716dcded8257a3
632fb053c00001976a914e4876df5735eaa10a761dca8d62a7a275349022188acbc1055e0331ea0ea63caf80e0a7f417
e50df6469a97db1f4f1d81990316a5e0b412045323bca7defef188065a6b30fb3057e4978b4f914e4e8cc0324098ae60ff
825693095b927cd9707fe10edbf8ef901fcbcb63eb9a0e7cd6fed39d50a8cde1cdb4
```

JSON-RPC Response:

```
{
  "txid": "62330c04f20acc541c8d4f3022ba2b032ea5530c476e61dc9c4235ac20d10f4f",
  "size": 469,
  "version": 3,
  "type": 1,
  "locktime": 0,
  "vin": [
    {
      "txid": "a65693797d7137a2529f438807a8c7c085d3984ceaa2f4f5230a36b536cbd326",
      "vout": 0,
      "scriptSig": {
        "asm":
"3045022100b025cd823cf6b746e97a1e5657c1c6f150bc63530734b1c5dacef2cfad53a8ea022073d0801e18a082e
aae70838f2cfc19c78b88b879af7d3e42023d61852ad289e7[ALL]
0222865251150a58f0f89602cb812046cc38c84d67e3dc74edb9061aaed19c2bde",
        "hex":
"483045022100b025cd823cf6b746e97a1e5657c1c6f150bc63530734b1c5dacef2cfad53a8ea022073d0801e18a08
2eaae70838f2cfc19c78b88b879af7d3e42023d61852ad289e701210222865251150a58f0f89602cb812046cc38c84
d67e3dc74edb9061aaed19c2bde"
      },
      "sequence": 4294967294
    }
  ]
}
```

```

    }
  ],
  "vout": [
    {
      "value": 31.42568259,
      "valueSat": 3142568259,
      "n": 0,
      "scriptPubKey": {
        "asm": "OP_DUP OP_HASH160 5cbfea4a74cfef5f801f2cbaf38a9bac7ebbb0e OP_EQUALVERIFY
OP_CHECKSIG",
        "hex": "76a9145cbfea4a74cfef5f801f2cbaf38a9bac7ebbb0e88ac",
        "reqSigs": 1,
        "type": "pubkeyhash",
        "addresses": [
          "yUmrVMSVw2iKVVVfarMASnBRtdfvX6MLFr"
        ]
      }
    }
  ],
  "extraPayloadSize": 274,
  "extraPayload":
"01000000000026d3cb36b5360a23f5f4a2ea4c98d385c0c7a80788439f52a237717d799356a60100000000000000
0000000000ffffc38d008f4e1f8a94fb062049b841f716dcded8257a3632fb053c8273ec203d1ea62cbdb54e10618
329e4ed93e99bc9c5ab2f4cb0055ad281f9ad0808a1dda6aedef12c41c53142828879b8a94fb062049b841f716dcded
8257a3632fb053c00001976a914e4876df5735eaa10a761dca8d62a7a275349022188acbc1055e0331ea0ea63caf80
e0a7f417e50df6469a97db1f4f1d81990316a5e0b412045323bca7defef188065a6b30fb3057e4978b4f914e4e8cc0
324098ae60fff825693095b927cd9707fe10edbf8ef901fcbcb63eb9a0e7cd6fed39d50a8cde1cbb4",
  "proRegTx": {
    "version": 1,
    "collateralHash": "a65693797d7137a2529f438807a8c7c085d3984ceaa2f4f5230a36b536cbd326",
    "collateralIndex": 1,
    "service": "195.141.0.143:19999",
    "keyIDOwner": "3c05fb32367a25d8dedc16f741b8492006fb948a",
    "pubKeyOperator":
"8273ec203d1ea62cbdb54e10618329e4ed93e99bc9c5ab2f4cb0055ad281f9ad0808a1dda6aedef12c41c531428288
79b",
    "keyIDVoting": "3c05fb32367a25d8dedc16f741b8492006fb948a",
    "payoutAddress": "yh9o9kPRK1s3YsuyCBe3DEjBit2RnzhgwH",
    "operatorReward": 0,
    "inputsHash": "0b5e6a319019d8f1f4b17da96964df507e417f0a0ef8ca63eaa01e33e05510bc"
  },
  "instantlock": false
}

```

Provider Update Service Transaction ([ProUpServTx](#))

Feature: [DIP 003: Deterministic Masternode List](#)

Purpose: Records updates to Masternode service details (e.g. server IP address, etc).

Scope: v13.0

Transaction Type: 2

Transaction Structure:

```
{
  "txid": <string>,
  "size": <int>,
  "version": 3,
  "type": 2,
  "locktime": 0,
  "vin": [ ... ],
  "vout": [ ... ],
  "extraPayloadSize": <variable int>,
  "extraPayload": ...
}
```

Raw Transaction Hex:

```
03000200017b1100a3e33b86b1e9948a1091648b44ac2e819850e321bbbbd9a7825cf173c8000000006a4730440220
28f2ca816270068494686ed25ff64590c3a04f0b730d7e52e751adf640a9e4de02200379a4757738e83c24d25988c6cb
4aed39120c985347a13e35401da41458ee0e012103a306d65010b0cb287de227a22b978973a0902174fe8bec61519d
91183c97d9a1fefffff01e5f5b47f000000001976a914b45868066caf1c974bd7d0fb42c896cecdeccc9588ac00000000ce
01007b1100a3e33b86b1e9948a1091648b44ac2e819850e321bbbbd9a7825cf173c800000000000000000000ffffc38d
8f314ef1976a9143e1f214c329557ae3711cb173bcf04d00762f3ff88ac3f7685789f3e6480ba6ed402285da0ed9cd055
8265603fa8bad0eec0572cf1eb1746f9c46d654879d9afd67a439d4bc2ef7c1b26de2e59897fa83242d9bd819ff46c71d9
e3d7aa1772f4003349b777140bedebded0a42efd64baf34f59c4a79c128df711c10a45505a0c2a94a5908f1642cbb5673
0f16b2cc2419a45890fb8ff
```

JSON-RPC Response:

```
{
  "txid": "8bbba69857ce67e93a580cb32ff4fa3b8be3f7101fec7bd5d736eb4466305094",
  "size": 398,
  "version": 3,
  "type": 2,
  "locktime": 0,
  "vin": [
    {
      "txid": "c873f15c82a7d9bbbb21e35098812eac448b6491108a94e9b1863be3a300117b",
      "vout": 0,
      "scriptSig": {
        "asm":
"3044022028f2ca816270068494686ed25ff64590c3a04f0b730d7e52e751adf640a9e4de02200379a4757738e83c2
4d25988c6cb4aed39120c985347a13e35401da41458ee0e[ALL]
03a306d65010b0cb287de227a22b978973a0902174fe8bec61519d91183c97d9a1",
        "hex":
"473044022028f2ca816270068494686ed25ff64590c3a04f0b730d7e52e751adf640a9e4de02200379a4757738e83
c24d25988c6cb4aed39120c985347a13e35401da41458ee0e012103a306d65010b0cb287de227a22b978973a090217
4fe8bec61519d91183c97d9a1"
      },
      "sequence": 4294967294
    }
  ]
}
```

```
],
"vout": [
  {
    "value": 21.42565861,
    "valueSat": 2142565861,
    "n": 0,
    "scriptPubKey": {
      "asm": "OP_DUP OP_HASH160 b45868066caf1c974bd7d0fb42c896cecdcccc95 OP_EQUALVERIFY
OP_CHECKSIG",
      "hex": "76a914b45868066caf1c974bd7d0fb42c896cecdcccc9588ac",
      "reqSigs": 1,
      "type": "pubkeyhash",
      "addresses": [
        "ycm2PK88JoLumDfztYdCbwfM1PnvE3gBGf"
      ]
    }
  }
],
"extraPayloadSize": 206,
"extraPayload":
"01007b1100a3e33b86b1e9948a1091648b44ac2e819850e321bbbbd9a7825cf173c800000000000000000000ffffc
38d8f314e1f1976a9143e1f214c329557ae3711cb173bcf04d00762f3ff88ac3f7685789f3e6480ba6ed402285da0e
d9cd0558265603fa8bad0eec0572cf1eb1746f9c46d654879d9afd67a439d4bc2ef7c1b26de2e59897fa83242d9bd8
19ff46c71d9e3d7aa1772f4003349b777140bedebded0a42efd64baf34f59c4a79c128df711c10a45505a0c2a94a59
08f1642cbb56730f16b2cc2419a45890fb8ff",
"proUpServTx": {
  "version": 1,
  "proTxHash": "c873f15c82a7d9bbbb21e35098812eac448b6491108a94e9b1863be3a300117b",
  "service": "195.141.143.49:19999",
  "operatorPayoutAddress": "yRyv33x1PzwSTW3B2DV3XXRyr7Z5M2P4V7",
  "inputsHash": "ebf12c57c0eed0baa83f60658255d09ceda05d2802d46eba80643e9f7885763f"
},
"instantlock": false
}
```

Provider Update Registrar Transaction ([ProUpRegTx](#))

Feature: [DIP 003: Deterministic Masternode List](#)

Purpose: Records updates to Masternode operator details (e.g. voting key, etc).

Scope: v13.0

Transaction Type: 3

Transaction Structure:

```
{
  "txid": <string>,
  "size": <int>,
  "version": 3,
  "type": 3,
  "locktime": 0,
  "vin": [ ... ],
  "vout": [ ... ],
  "extraPayloadSize": <variable int>,
  "extraPayload": ...
}
```

Raw Transaction Hex:

```
03000300014f0fd120ac35429cdc616e470c53a52e032bba22304f8d1c54cc0af2040c3362000000006b483045022100
dd412692cfc23f6b4e8853e5db29f314d9d309c4c6caa4be8bd325f74def1ad4022038eda085b8e13420e4d849e21830
7c97bf0873819d52968325e8f17500d534580121025f4156984bd7f24c63e63caae7b3e3ae0afb008258b9446bdc97fb
d3316de3f5feffff0194c74fbb000000001976a9140b6def979ca5d7ae8b7319d421736cab851dc7de88ac00000000e40
1004f0fd120ac35429cdc616e470c53a52e032bba22304f8d1c54cc0af2040c3362000018ece819b998a36a185e323a8
749e55fd3dc2e259b741f8580fbd68cbd9f51d30f4d4da34fd5afc71859dca3cf10fbda8a94fb062049b841f716dcded825
7a3632fb053c1976a914f25c59be48ee1c4fd3733ecf56f440659f1d6c5088acb309a51267451a7f52e79ef2391aa952e9
a0284e8fd8db56cdcae3b49b7e6dab4120c838c08b9492c5039444cac11e466df3609c585010fab636de75c687bab9f6
154d9a7c26d7b5384a147fc67ddb2e66e5f773af73dbf818109aec692ed364eafd
```

JSON-RPC Response:

```
{
  "txid": "337456ea0f912f9c2e91bdadd1cd208e77ee8a7e5d6a9a491b13fa94a40b5d97",
  "size": 421,
  "version": 3,
  "type": 3,
  "locktime": 0,
  "vin": [
    {
      "txid": "62330c04f20acc541c8d4f3022ba2b032ea5530c476e61dc9c4235ac20d10f4f",
      "vout": 0,
      "scriptSig": {
        "asm":
"3045022100dd412692cfc23f6b4e8853e5db29f314d9d309c4c6caa4be8bd325f74def1ad4022038eda085b8e1342
0e4d849e218307c97bf0873819d52968325e8f17500d53458[ALL]
025f4156984bd7f24c63e63caae7b3e3ae0afb008258b9446bdc97fbd3316de3f5",
        "hex":
"483045022100dd412692cfc23f6b4e8853e5db29f314d9d309c4c6caa4be8bd325f74def1ad4022038eda085b8e13
420e4d849e218307c97bf0873819d52968325e8f17500d534580121025f4156984bd7f24c63e63caae7b3e3ae0afb0
08258b9446bdc97fbd3316de3f5"
      },
      "sequence": 4294967294
    }
  ]
}
```

```

],
"vout": [
  {
    "value": 31.42567828,
    "valueSat": 3142567828,
    "n": 0,
    "scriptPubKey": {
      "asm": "OP_DUP OP_HASH160 0b6def979ca5d7ae8b7319d421736cab851dc7de OP_EQUALVERIFY
OP_CHECKSIG",
      "hex": "76a9140b6def979ca5d7ae8b7319d421736cab851dc7de88ac",
      "reqSigs": 1,
      "type": "pubkeyhash",
      "addresses": [
        "yMMsyol3PTnRPgWlBut5dzn9uGSZtcPjhj"
      ]
    }
  }
],
"extraPayloadSize": 228,
"extraPayload":
"01004f0fd120ac35429cdc616e470c53a52e032bba22304f8d1c54cc0af2040c3362000018ece819b998a36a185e3
23a8749e55fd3dc2e259b741f8580fbd68cbd9f51d30f4d4da34fd5afc71859dca3cf10fbda8a94fb062049b841f71
6dcdded8257a3632fb053c1976a914f25c59be48ee1c4fd3733ecf56f440659f1d6c5088acb309a51267451a7f52e79
ef2391aa952e9a0284e8fd8db56cdcae3b49b7e6dab4120c838c08b9492c5039444cac11e466df3609c585010fab63
6de75c687bab9f6154d9a7c26d7b5384a147fc67ddb2e66e5f773af73dbf818109aec692ed364eafd",
"proUpRegTx": {
  "version": 1,
  "proTxHash": "62330c04f20acc541c8d4f3022ba2b032ea5530c476e61dc9c4235ac20d10f4f",
  "pubKeyOperator":
"18ece819b998a36a185e323a8749e55fd3dc2e259b741f8580fbd68cbd9f51d30f4d4da34fd5afc71859dca3cf10f
bda",
  "keyIDVoting": "3c05fb32367a25d8dedc16f741b8492006fb948a",
  "payoutAddress": "yiQw1FmRannHeZYrjA1iGD2vQniqjgGENc",
  "inputsHash": "ab6d7e9bb4e3cacd56dbd88f4e28a0e952a91a39f29ee7527f1a456712a509b3"
},
"instantlock": false
}

```

Provider Update Revocation Transaction ([ProUpRevTx](#))

Feature: [DIP 003: Deterministic Masternode List](#)

Purpose: Records the removal of a Masternode from the network.

Scope: v13.0

Transaction Type: 4

Transaction Structure:

```
{
  "txid": <string>,
  "size": <int>,
  "version": 3,
  "type": 4,
  "locktime": 0,
  "vin": [ ... ],
  "vout": [ ... ],
  "extraPayloadSize": <variable int>,
  "extraPayload": ...
}
```

Raw Transaction Hex:

```
03000400016f8a813df204873df003d6efc44e1906eaf6180a762513b1c91252826ce05916000000006b483045022100
9b50474beacd48b37340eb5715a5ebd92239e54595147b5c55018bc29f26bde302203f312cdd8009f3f03b9bb9a0007
4361974a40f5f5fafaf16ba4378cb72adcc4201210250a5b41488dec3d4116ae5733d18d03326050aebc3958118d6477
39ad1a5de24fefffff01b974ed6d000000001976a914f0ae84a7ea8a0efd48c155eeaaed6eb64c2812188ac00000000a
401006f8a813df204873df003d6efc44e1906eaf6180a762513b1c91252826ce05916010082cf248cf6b8ac6a3cdc826e
dae582ead20421659ed891f9d4953a540616fb4f05279584b3339ed2ba95711ad28b18ee2878c4a904f76ea4d103e1d
739f22ff7e3b9b3db7d0c4a7e120abb4952c3574a18de34fa29828f9fe3f52bd0b1fac17acd04f7751967d782045ab6550
53653438f1dd1e14ba6adeb8351b78c9eb59bf4
```

JSON-RPC Response:

```
{
  "txid": "6926d964bccfd4418e373f08cf41d3302f9616ee5d9bc40b18aa99fc18a3d4ea",
  "size": 357,
  "version": 3,
  "type": 4,
  "locktime": 0,
  "vin": [
    {
      "txid": "1659e06c825212c9b11325760a18f6ea06194ec4efd603f03d8704f23d818a6f",
      "vout": 0,
      "scriptSig": {
        "asm":
"30450221009b50474beacd48b37340eb5715a5ebd92239e54595147b5c55018bc29f26bde302203f312cdd8009f3f
03b9bb9a00074361974a40f5f5fafaf16ba4378cb72adcc42[ALL]
0250a5b41488dec3d4116ae5733d18d03326050aebc3958118d647739ad1a5de24",
        "hex":
"4830450221009b50474beacd48b37340eb5715a5ebd92239e54595147b5c55018bc29f26bde302203f312cdd8009f
3f03b9bb9a00074361974a40f5f5fafaf16ba4378cb72adcc4201210250a5b41488dec3d4116ae5733d18d03326050
aebc3958118d647739ad1a5de24"
      },
      "sequence": 4294967294
    }
  ],
}
```



```
"vout": [
  {
    "value": 18.44278457,
    "valueSat": 1844278457,
    "n": 0,
    "scriptPubKey": {
      "asm": "OP_DUP OP_HASH160 f0ae84a7ea8a0efd48c155eeaaed6eb64c28121 OP_EQUALVERIFY
OP_CHECKSIG",
      "hex": "76a914f0ae84a7ea8a0efd48c155eeaaed6eb64c2812188ac",
      "reqSigs": 1,
      "type": "pubkeyhash",
      "addresses": [
        "yiG45yiCksvpd1iLU5o3DsJ8GYRsWvGchu"
      ]
    }
  }
],
"extraPayloadSize": 164,
"extraPayload":
"01006f8a813df204873df003d6efc44e1906eaf6180a762513b1c91252826ce05916010082cf248cf6b8ac6a3cdc8
26edae582ead20421659ed891f9d4953a540616fb4f05279584b3339ed2ba95711ad28b18ee2878c4a904f76ea4d10
3eld739f22ff7e3b9b3db7d0c4a7e120abb4952c3574a18de34fa29828f9fe3f52bd0b1fac17acd04f7751967d7820
45ab655053653438f1dd1e14ba6adeb8351b78c9eb59bf4",
  "proUpRevTx": {
    "version": 1,
    "proTxHash": "1659e06c825212c9b11325760a18f6ea06194ec4efd603f03d8704f23d818a6f",
    "reason": 1,
    "inputsHash": "4ffb1606543a95d4f991d89e652104d2ea82e5da6e82dc3c6aach8f68c24cf82"
  },
  "instantlock": false
}
```

Coinbase Transaction (CbTx)

Feature: [DIP 004: Simplified Verification of Deterministic Masternode Lists](#)

Purpose: Records a Merkle Proof of the current Masternode List.

Scope: v13.0

Transaction Type: 5

Transaction Structure:

```
{
  "txid": <string>,
  "size": <int>,
  "version": 3,
  "type": 5,
  "locktime": 0,
  "vin": [ ... ],
  "vout": [ ... ],
  "extraPayloadSize": <variable int>,
  "extraPayload": ...
}
```

Raw Transaction Hex:

[illegible]

JSON-RPC Response:

```
{
  "txid": "13c97f347a78eb3c200e224d074207043e419feef46a447b4065add9da90068d",
  "size": 261,
  "version": 3,
  "type": 5,
  "locktime": 0,
  "vin": [
    {
      "coinbase": "027d1b0e2f5032506f6f6c2d74444153482f",
      "sequence": 4294967295
    }
  ],
  "vout": [
    {
      "value": 68.17518851,
      "valueSat": 6817518851,
      "n": 0,
      "scriptPubKey": {
        "asm": "OP_DUP OP_HASH160 4f79c383bc5d3e9d4d81b98f87337cedfa789536 OP_EQUALVERIFY OP_CHECKSIG",
        "hex": "76a9144f79c383bc5d3e9d4d81b98f87337cedfa78953688ac",
        "reqSigs": 1,
        "type": "pubkeyhash",
        "addresses": [
          "yTZq6eePKxbJZyoaC93bVrTUg5vjhFrbst"
        ]
      }
    }
  ]
}
```


Quorum Commitment (QcTx)

Feature: DIP 002: Special Transactions

Feature: [DIP 006: Long Living Masternode Quorums](#)

Purpose: Records blockchain-verifiable details of a LLMQ session.

Scope: v13.0

Transaction Type: 6

Transaction Structure:

```
{
  "txid": <string>,
  "size": <int>,
  "version": 3,
  "type": 6,
  "locktime": 0,
  "vin": [],
  "vout": [],
  "extraPayloadSize": <variable int>,
  "extraPayload": ...
}
```

Raw Transaction Hex:

[illegible]

JSON-RPC Response:

[illegible]

```
"height": 7044,  
  "commitment": {  
    "version": 1,  
    "llmqType": 1,  
    "quorumHash": "0000000c139268e251525fedd460e9388a997e4400e23075c42b0b23e4d31c21",  
    "signersCount": 0,  
    "validMembersCount": 0,  
    "quorumPublicKey":  
      "000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000"  
      "000"  
    }  
  },  
  
  "instantlock": false  
}
```