Webhooks

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Taiga webhooks notify changes on milestones, user stories, tasks, issues and wiki pages sending POST requests signed with a private key, to the configured urls.

Each project can have any number of webhooks configured on it.

1. Request

The request made by the Taiga webhooks can be synchronous or asynchronous (it depends on the Taiga configuration, for example tree.taiga.io is async). In asynchronous mode those requests to your configured url can have a delay of some seconds.

All request send to the URL are POST with header `Content-Type` equals to `application/json` and a signature of the message in the `X-TAIGA-WEBHOOK-SIGNATURE` HTTP header.

The body of the POST request is just a JSON with the corresponding payload.

2. Verify signature

Every request have a header called `X-TAIGA-WEBHOOK-SIGNATURE` that contains the signature generated with [HMAC](http://en.wikipedia.org/wiki/Hash-based_message_authentication_code) using sha1 hash.

An example of signature verification in python:

```python
def verify_signature(key, data, signature):
    mac = hmac.new(key.encode("utf-8"), msg=data, digestmod=hashlib.sha1)
    return mac.hexdigest() == signature
```

in php:

```php
<?php
    function verify_signature($key, $data, $signature) {
        return hash_hmac("sha1", $data , $key) == $signature
    }
?>
```

3. Payloads

The sended request depends on the object type and the kind of change, all payloads have the same base structure

```
{
    "data": {},
    "action": "",
    "type": "",
    "change": {}
}
```

- The `data` field contains the current object information.
- The `action` field contains notification type with values: "create", "delete", "change" or "test".
- The `type` field contains the type of object with values: "milestone", "userstory", "task", "issue", "wikipage" or "test".
- The `change` field (only present on change notifications) contains the information about the changes made.

3.1. Test payload

```
{
    "data": {"test": "test"},
    "action": "test",
    "type": "test"
}
```

3.2. Milestone payloads

3.2.1. Create

```json
{
    "data": {
        "owner": {"id": 4, "name": "Test User"},
        "id": 16,
        "name": "Test",
        "slug": "test",
        "project": 1,
        "estimated_start": "2015-02-17",
        "estimated_finish": "2015-03-03",
        "created_date": "2015-01-21T17:52:47+0000",
        "modified_date": "2015-01-21T17:52:47+0000",
        "closed": false,
        "disponibility": 0.0
    },
    "action": "create",
    "type": "milestone"
}
```

3.2.2. Delete

```json
{
    "data": {
        "owner": {"id": 4, "name": "Test User"},
        "id": 16,
        "name": "Test",
        "slug": "test",
        "project": 1,
        "estimated_start": "2015-02-17",
        "estimated_finish": "2015-03-03",
        "created_date": "2015-01-21T17:52:47+0000",
        "modified_date": "2015-01-21T17:52:47+0000",
        "closed": false,
        "disponibility": 0.0
    },
    "action": "delete",
    "type": "milestone"
}
```

3.2.3. Change

```
{
    "data": {
        "owner": {"id": 4, "name": "Test User"},
        "id": 16,
        "name": "Test2",
        "slug": "test",
        "project": 1,
        "estimated_start": "2015-02-17",
        "estimated_finish": "2015-03-03",
        "created_date": "2015-01-21T17:52:47+0000",
        "modified_date": "2015-01-21T17:54:14+0000",
        "closed": false,
        "disponibility": 0.0
    },
    "action": "change",
    "type": "milestone",
    "change": {
        "diff": {
            "estimated_finish": {"from": "2015-03-03", "to": "2015-03-03"},
            "estimated_start": {"from": "2015-02-17", "to": "2015-02-17"},
            "name": {"from": "Test", "to": "Test2"}
        },
        "snapshot": null,
        "values": {},
        "user": {"name": "admin", "pk": 4},
        "delete_comment_user": null,
        "id": "8355e08c-a196-11e4-9a81-68f72800ab2e",
        "created_at": "2015-01-21T17:54:14+0000",
        "type": 1,
        "key": "milestones.milestone:16",
        "comment": "",
        "comment_html": "",
        "delete_comment_date": null,
        "is_hidden": false,
        "is_snapshot": false
    }
}
```

3.3. User story data information

3.3.1. Create

```
{
    "data": {
        "tags": ["nulla"],
        "external_reference": null,
        "owner": {"id": 14, "name": "Teresa Gallardo"},
        "assigned_to": {"id": 9, "name": "Alicia Flores"},
        "watchers": [],
        "points": [
            {"id": 3, "name": "1/2", "value": 0.5},
            {"id": 4, "name": "1", "value": 1.0},
            {"id": 9, "name": "10", "value": 10.0},
            {"id": 9, "name": "10", "value": 10.0}
        ],
        "id": 31,
        "is_blocked": false,
        "blocked_note": "",
        "ref": 80,
        "milestone": null,
        "project": 1,
        "status": 3,
        "is_closed": false,
        "created_date": "2015-01-14T12:37:02+0000",
        "modified_date": "2015-01-14T12:37:02+0000",
        "finish_date": null,
        "subject": "Implement the form",
        "description": "Deleniti sunt tempora? Amet molestias...",
        "client_requirement": false,
        "team_requirement": false,
        "generated_from_issue": null
    },
    "action": "create",
    "type": "userstory"
}
```

3.3.2. Delete

```
{
    "data": {
        "tags": ["nulla"],
        "external_reference": null,
        "owner": {"id": 14, "name": "Teresa Gallardo"},
        "assigned_to": {"id": 9, "name": "Alicia Flores"},
        "watchers": [],
        "points": [
            {"id": 3, "name": "1/2", "value": 0.5},
            {"id": 4, "name": "1", "value": 1.0},
            {"id": 9, "name": "10", "value": 10.0},
            {"id": 9, "name": "10", "value": 10.0}
        ],
        "id": 31,
        "is_blocked": false,
        "blocked_note": "",
        "ref": 80,
        "milestone": null,
        "project": 1,
        "status": 3,
        "is_closed": false,
        "created_date": "2015-01-14T12:37:02+0000",
        "modified_date": "2015-01-14T12:37:02+0000",
        "finish_date": null,
        "subject": "Implement the form",
        "description": "Deleniti sunt tempora? Amet molestias...",
        "client_requirement": false,
        "team_requirement": false,
        "generated_from_issue": null
    },
    "action": "delete",
    "type": "userstory"
}
```

3.3.3. Change

```
{
    "data": {
        "tags": ["nulla"],
        "external_reference": null,
        "owner": {"id": 14, "name": "Teresa Gallardo"},
        "assigned_to": {"id": 9, "name": "Alicia Flores"},
        "watchers": [],
        "points": [
            {"id": 3, "name": "1/2", "value": 0.5},
```

```json
            {"id": 4, "name": "1", "value": 1.0},
            {"id": 9, "name": "10", "value": 10.0},
            {"id": 9, "name": "10", "value": 10.0}
        ],
        "id": 19,
        "is_blocked": false,
        "blocked_note": "",
        "ref": 80,
        "milestone": null,
        "project": 1,
        "status": 5,
        "is_closed": true,
        "created_date": "2015-01-14T12:37:02+0000",
        "modified_date": "2015-01-14T12:37:02+0000",
        "finish_date": "2015-01-21 18:04:02.344463+00:00",
        "subject": "Implement the form",
        "description": "Deleniti sunt tempora? Amet molestias...",
        "client_requirement": false,
        "team_requirement": false,
        "generated_from_issue": null
    },
    "type": "userstory",
    "change": {
        "diff": {
            "finish_date": {"to": "2015-01-21 18:04:02.344463+00:00", "from": "None"},
            "status": {"to": 5, "from": 2},
            "is_closed": {"to": true, "from": false}
        },
        "snapshot": null,
        "values": {
            "status": {"2": "Ready", "5": "Done"}
        },
        "user": {"name": "admin", "pk": 4},
        "delete_comment_user": null,
        "id": "e196cce6-a197-11e4-b20b-68f72800ab2e",
        "created_at": "2015-01-21T18:04:02+0000",
        "type": 1,
        "key": "userstories.userstory:19",
        "comment": "",
        "comment_html": "",
        "delete_comment_date": null,
        "is_hidden": false,
        "is_snapshot": false
    },
    "action": "change"
}
```

3.4. Task data information

3.4.1. Create

```
{
    "data": {
        "tags": ["beatae", "veritatis"],
        "owner": {"id": 14, "name": "Teresa Gallardo"},
        "assigned_to": {"id": 6, "name": "Josefa Serrano"},
        "watchers": [],
        "id": 36,
        "version": 2,
        "is_blocked": false,
        "blocked_note": "",
        "user_story": 14,
        "ref": 50,
        "status": 4,
        "project": 1,
        "milestone": 5,
        "created_date": "2015-01-14T12:36:58+0000",
        "modified_date": "2015-01-14T12:36:58+0000",
        "finished_date": null,
        "subject": "Lighttpd x-sendfile support",
        "us_order": 1,
        "taskboard_order": 0,
        "description": "Eos reiciendis ipsum voluptatem est, unde maxime...",
        "is_iocaine": false,
        "external_reference": null
    },
    "action": "create",
    "type": "task"
}
```

3.4.2. Delete

```
{
    "data": {
        "tags": ["beatae", "veritatis"],
        "owner": {"id": 14, "name": "Teresa Gallardo"},
        "assigned_to": {"id": 6, "name": "Josefa Serrano"},
        "watchers": [],
        "id": 36,
        "version": 2,
        "is_blocked": false,
        "blocked_note": "",
        "user_story": 14,
        "ref": 50,
        "status": 4,
        "project": 1,
        "milestone": 5,
        "created_date": "2015-01-14T12:36:58+0000",
        "modified_date": "2015-01-22T09:10:59+0000",
        "finished_date": null,
        "subject": "Lighttpd x-sendfile support",
        "us_order": 1,
        "taskboard_order": 0,
        "description": "Eos reiciendis ipsum voluptatem est, unde maxime...",
        "is_iocaine": false,
        "external_reference": null
    },
    "action": "delete",
    "type": "task"
}
```

3.4.3. Change

```
{
    "data": {
        "tags": ["beatae", "veritatis"],
        "owner": {"id": 14, "name": "Teresa Gallardo"},
        "assigned_to": {"id": 6, "name": "Josefa Serrano"},
        "watchers": [],
        "id": 36,
        "version": 2,
        "is_blocked": false,
        "blocked_note": "",
        "user_story": 14,
        "ref": 50,
        "status": 4,
        "project": 1,
```

```
            "milestone": 5,
            "created_date": "2015-01-14T12:36:58+0000",
            "modified_date": "2015-01-22T09:10:59+0000",
            "finished_date": null,
            "subject": "Lighttpd x-sendfile support",
            "us_order": 1,
            "taskboard_order": 0,
            "description": "Eos reiciendis ipsum voluptatem est, unde maxime...",
            "is_iocaine": false,
            "external_reference": null
        },
        "change": {
            "diff": {
                "milestone": {"from": 4, "to": 5},
                "taskboard_order": {"from": 1, "to": 0},
                "status": {"from": 3, "to": 4}
            },
            "snapshot": null,
            "values": {
                "milestone": {"5": "Sprint 2015-1-18", "4": "Sprint 2015-1-4"},
                "status": {"4": "Closed", "3": "Ready for test"}
            },
            "user": {"name": "admin", "pk": 4},
            "delete_comment_user": null,
            "id": "94c13602-a216-11e4-830a-68f72800ab2e",
            "created_at": "2015-01-22T09:10:59+0000",
            "type": 1,
            "key": "tasks.task:36",
            "comment": "",
            "comment_html": "",
            "delete_comment_date": null,
            "is_hidden": false,
            "is_snapshot": false
        },
        "action": "change",
        "type": "task"
}
```

3.5. Issue data information

3.5.1. Create

```json
{
    "data": {
        "tags": ["velit", "voluptatem"],
        "owner": {"id": 10, "name": "Alicia Diaz"},
        "assigned_to": {"id": 12, "name": "Josefina Reyes"},
        "watchers": [],
        "id": 22,
        "version": 2,
        "is_blocked": false,
        "blocked_note": "",
        "ref": 105,
        "status": 2,
        "severity": 3,
        "priority": 2,
        "type": 3,
        "milestone": null,
        "project": 1,
        "created_date": "2015-01-14T12:37:04+0000",
        "modified_date": "2015-01-14T12:37:04+0000",
        "finished_date": null,
        "subject": "Lighttpd x-sendfile support",
        "description": "Nemo quo eveniet quibusdam laboriosam non...",
        "external_reference": null
    },
    "action": "create",
    "type": "issue"
}
```

3.5.2. Delete

```
{
    "data": {
        "tags": ["velit", "voluptatem"],
        "owner": {"id": 10, "name": "Alicia Diaz"},
        "assigned_to": {"id": 12, "name": "Josefina Reyes"},
        "watchers": [],
        "id": 22,
        "version": 2,
        "is_blocked": false,
        "blocked_note": "",
        "ref": 105,
        "status": 2,
        "severity": 3,
        "priority": 2,
        "type": 3,
        "milestone": null,
        "project": 1,
        "created_date": "2015-01-14T12:37:04+0000",
        "modified_date": "2015-01-22T09:14:04+0000",
        "finished_date": null,
        "subject": "Lighttpd x-sendfile support",
        "description": "Nemo quo eveniet quibusdam laboriosam non...",
        "external_reference": null
    },
    "action": "delete",
    "type": "issue"
}
```

3.5.3. Change

```
{
    "data": {
        "tags": ["velit", "voluptatem"],
        "owner": {"id": 10, "name": "Alicia Diaz"},
        "assigned_to": {"id": 12, "name": "Josefina Reyes"},
        "watchers": [],
        "id": 22,
        "version": 2,
        "is_blocked": false,
        "blocked_note": "",
        "ref": 105,
        "status": 2,
        "severity": 3,
        "priority": 2,
        "type": 3,
```

```json
        "milestone": null,
        "project": 1,
        "created_date": "2015-01-14T12:37:04+0000",
        "modified_date": "2015-01-22T09:14:04+0000",
        "finished_date": null,
        "subject": "Lighttpd x-sendfile support",
        "description": "Nemo quo eveniet quibusdam laboriosam non...",
        "external_reference": null
    },
    "change": {
        "diff": {
            "status": {"from": 1, "to": 2}
        },
        "snapshot": null,
        "values": {
            "status": {"2": "In progress", "1": "New"}
        },
        "user": {"name": "admin", "pk": 4},
        "delete_comment_user": null,
        "id": "031469a8-a217-11e4-a515-68f72800ab2e",
        "created_at": "2015-01-22T09:14:04+0000",
        "type": 1,
        "key": "issues.issue:22",
        "comment": "",
        "comment_html": "",
        "delete_comment_date": null,
        "is_hidden": false,
        "is_snapshot": false
    },
    "action": "change",
    "type": "issue"
}
```

3.6. Wiki page data information

3.6.1. Create

```json
{
    "data": {
        "owner": {"id": 4, "name": "Test User"},
        "last_modifier": {"id": 4, "name": "Test User"},
        "id": 8,
        "project": 1,
        "slug": "test",
        "content": "Test wiki page",
        "created_date": "2015-01-21T17:57:03+0000",
        "modified_date": "2015-01-21T17:57:03+0000"
    },
    "action": "create",
    "type": "wikipage"
}
```

3.6.2. Delete

```json
{
    "data": {
        "owner": {"id": 4, "name": "Test User"},
        "last_modifier": {"id": 4, "name": "Test User"},
        "id": 8,
        "project": 1,
        "slug": "test",
        "content": "Test wiki page",
        "created_date": "2015-01-21T17:57:03+0000",
        "modified_date": "2015-01-21T17:57:03+0000"
    },
    "action": "delete",
    "type": "milestone"
}
```

3.6.3. Change

```json
{
    "data": {
        "owner": {"id": 4, "name": ""},
        "last_modifier": {"id": 4, "name": ""},
        "id": 8,
        "project": 1,
        "slug": "test",
        "content": "Test wiki page changed",
        "created_date": "2015-01-21T17:57:03+0000",
        "modified_date": "2015-01-21T17:58:11+0000"
    },
    "action": "change",
    "type": "wikipage",
    "change": {
        "diff": {
            "content_html": {
                "from": "<p>Test wiki page</p>",
                "to": "<p>Test wiki page changed</p>"
            },
            "content": {"from": "Test wiki page", "to": "Test wiki page changed"}
        },
        "snapshot": null,
        "values": {},
        "user": {"name": "admin", "pk": 4},
        "delete_comment_user": null,
        "id": "10a7c0cc-a197-11e4-8f0c-68f72800ab2e",
        "created_at": "2015-01-21T17:58:11+0000",
        "type": 1,
        "key": "wiki.wikipage:8",
        "comment": "",
        "comment_html": "",
        "delete_comment_date": null,
        "is_hidden": false,
        "is_snapshot": false
    }
}
```