

Microsoft Teams Bots in Channels Documentation

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You can now add your bot to a team. Once a bot is added to a team, it can be invoked via @mention from any channel. You must @mention the bot for it to receive a message.

APIs

As a review, each team has a unique ID, which is the same as the General channel's conversation ID.

Every channel has its own conversation ID as well.

Common properties (new)

In general, every message or event from a user interacting with the bot in a team will contain the following properties:

- `channelData.tenant` object, which contains tenant ID
- `channelData.team` object, which contains team ID
- `channelData.channel` object, which contains channel ID

Note: the payload also includes `channelData.teamsTeamId` and `channelData.teamsChannelId` properties for backwards compatibility.

Schema example

Receiving messages (updated)

Bots will receive messages to the registered Bot Framework callback URL as they do today.

In addition to the regular message schema, your bot will also receive the following properties:

- Reply chain ID, which is in the `conversation.id` property.
- Mentioned bots and users, which are found in the entities section. The mention text property is contained within in the top-level `message.text` property.

Schema example

```
{
  "text": "<at>SongsuggesterBot</at> Hey there?",
  "textFormat": "plain",
  "attachments": [
    {
      "contentType": "text/html",
      "content": "<div><span contenteditable=\"false\" itemscope=\"\"
itemtype=\"http://schema.skype.com/Mention\" itemid=\"0\">SongsuggesterBot</span>&#160;Hey
there?</div>"
    }
  ],
  "type": "message",
  "timestamp": "2017-02-23T19:57:25.51Z",
  "id": "1487879848560",
  "channelId": "msteams",
  "serviceUrl": "https://smba.trafficmanager.net/amer-client-ss.msg/",
  "from": {
    "id": "29:1I9Is_Sx00-Iy2rQ7Xz1lcaPKl09eqmBRTBuW6XzkFtcjqxTjPaCmij8BVMdBcL9L_RwWNJyAHFQb0TRzXgyQvA",
    "name": "Narasimhan Govindarajan"
  },
  "conversation": {
    "isGroup": true,
    "id": "19:366167256b1c491c99df5cb9cc39fba3@thread.skype;messageid=1487879848560"
  },
  "recipient": {
    "id": "28:f5d48856-5b42-41a0-8c3a-c5f944b679b0",
    "name": "SongsuggesterBot"
  },
  "entities": [
    {
      "mentioned": {
        "id": "28:f5d48856-5b42-41a0-8c3a-c5f944b679b0",
        "name": "SongsuggesterBot"
      },
      "text": "<at>SongsuggesterBot</at>",
      "type": "mention"
    }
  ]
}
```

```

    },
    {
      "locale": "en-US",
      "country": "US",
      "platform": "Windows",
      "type": "clientInfo"
    }
  ],
  "channelData": {
    "teamsChannelId": "19:366167256b1c491c99df5cb9cc39fba3@thread.skype",
    "teamsTeamId": "19:efa9296d959346209fea44151c742e73@thread.skype",
    "channel": {
      "id": "19:366167256b1c491c99df5cb9cc39fba3@thread.skype"
    },
    "team": {
      "id": "19:efa9296d959346209fea44151c742e73@thread.skype"
    },
    "onBehalfOf": "[]",
    "tenant": {
      "id": "72f988bf-86f1-41af-91ab-2d7cd011db47"
    }
  }
}

```

Replying to messages (updated)

In order to reply to an existing message, you simply need to call the **ReplyToActivity** method in the BotBuilder SDK, or call the `/conversations/{conversationId}/activities/{activityId}` Connector REST API endpoint.

Because channel messages are contained with reply chains, you will want to post the message back to an existing reply chain ID. To do this, make sure the conversation ID contains the “;messageid=xxx” portion.

Your bot will be able to post any message that is valid for 1:1 chat, such as Hero and Thumbnail cards.

Schema example

```

{
  "type": "message",
  "timestamp": "2016-10-29T00:51:05.9908157Z",
  "serviceUrl": "https://skype.botframework.com",
  "channelId": "msteams",
  "from": {
    "id": "28:9e52142b-5e5e-4d7b-bb3e-e82dcf620000",
    "name": "SchemaTestBot"
  },
  "conversation": {
    "id": "19:aebd0ad4d6ab42c8b9ed19c251c2fc37@thread.skype;messageid=1481567603816"
  },
  "recipient": {
    "id": "8:orgid:6aebbad0-e5a5-424a-834a-20fb051f3c1a",
    "name": "stlrgload100"
  },
  "text": "",
  "attachments": [
    {
      "contentType": "image/png",
      "contentUrl": "https://upload.wikimedia.org/wikipedia/en/a/a6/Bender_Rodriguez.png",
      "name": "Bender_Rodriguez.png"
    }
  ]
}

```

```

    }
  ],
  "entities": [
  ],
  "replyToId": "3UP4UTkzUk1zzeyW"
}

```

Constructing mentions

Your bot can also @mention other users in messages posted into channels. To do this, your message must:

- Include `<at>@username</at>` in the message text. Note, at this time because we do not provide an API to return profile information so you can either obtain this value from a received message or from an external lookup, e.g. Azure ActiveDirectory
- Include the mention object inside the entities collection

Schema example

```

{
  "type": "message",
  "text": "Hey <at>Larry Jin</at> check out this message",
  "timestamp": "2016-10-29T00:51:05.9908157Z",
  "serviceUrl": "https://skype.botframework.com",
  "channelId": "msteams",
  "from": {
    "id": "28:9e52142b-5e5e-4d7b-bb3e-e82dcf620000",
    "name": "SchemaTestBot"
  },
  "conversation": {
    "id": "19:aebd0ad4d6ab42c8b9ed19c251c2fc37@thread.skype;messageid=1481567603816"
  },
  "recipient": {
    "id": "8:orgid:6aebbad0-e5a5-424a-834a-20fb051f3c1a",
    "name": "stlrgload100"
  },
  "attachments": [
    {
      "contentType": "image/png",
      "contentUrl": "https://upload.wikimedia.org/wikipedia/en/a/a6/Bender_Rodriguez.png",
      "name": "Bender_Rodriguez.png"
    }
  ],
  "entities": [
    {
      "type": "mention",
      "mentioned": {
        "id": "29:08q2j2o3jc09au90eucae",
        "name": "Larry Jin"
      },
      "text": "<at>@Larry Jin</at>"
    }
  ],
  "replyToId": "3UP4UTkzUk1zzeyW"
}

```

Creating a new reply chain (updated)

Your bot can also post into a channel to create a new reply chain via the `CreateConversation()` method of the BotBuilder SDK. Alternatively, you can issue a POST request to the `/conversations/{conversationId}/activities/` resource.

```
{
  "type": "message/card",
  "timestamp": "2016-10-29T00:51:05.9908157Z",
  "serviceUrl": "https://skype.botframework.com",
  "channelId": "msteams",
  "from": {
    "id": "28:9e52142b-5e5e-4d7b-bb3e- e82dcf620000",
    "name": "SchemaTestBot"
  },
  "conversation": {
    "id": "19:aebd0ad4d6ab42c8b9ed19c251c2fc37@thread.skype"
  },
  "recipient": {
    "id": "8:orgid:6aebbad0-e5a5-424a-834a-20fb051f3c1a",
    "name": "stlrgload100"
  },
  "text": "",
  "attachments": [
    {
      "contentType": "image/png",
      "contentUrl": "https://upload.wikimedia.org/wikipedia/en/a/a6/Bender_Rodriguez.png",
      "name": "Bender_Rodriguez.png"
    }
  ],
  "entities": [],
  "replyToId": "3UP4UTkzUk1zzeyW"
}
```

Fetching the team roster

Your bot application can now query for the list of team members. Currently, this only returns the user ID but we will be including profile information in the future.

HTTP request

```
GET /v3/conversations/{teamId}/members
```

Schema example

```
[
  {
    "id": "29:0182121jcoaewalkea"
  },
  {
    "id": "29:08aj12oojoaoecuaowuao"
  },
  {
    "id": "29:jajcaaoe890182jlae"
  }
]
```

Team update events

Bot added to team

When your bot is added to a team, it will receive a conversationUpdate event that includes the information described above. You can tell that the event is for a team update by checking for the existence of the team object in channelData.

Schema example

```
{
  "membersAdded": [
    {
      "id": "28:f5d48856-5b42-41a0-8c3a-c5f944b679b0"
    }
  ],
  "type": "conversationUpdate",
  "timestamp": "2017-02-23T19:38:35.312Z",
  "id": "f:5f85c2ad",
  "channelId": "msteams",
  "serviceUrl": "https://smba.trafficmanager.net/amer-client-ss.msg/",
  "from": {
    "id": "29:1I9Is_Sx00-Iy2rQ7Xz1lcaPK109eqmBRTBuW6XzkFtcjqxTjPaCMij8BVMdBcL9L_RwWNJyAHFQb0TRzXgyQvA"
  },
  "conversation": {
    "isGroup": true,
    "id": "19:efa9296d959346209fea44151c742e73@thread.skype"
  },
  "recipient": {
    "id": "28:f5d48856-5b42-41a0-8c3a-c5f944b679b0",
    "name": "SongsuggesterBot"
  },
  "channelData": {
    "team": {
      "id": "19:efa9296d959346209fea44151c742e73@thread.skype"
    },
    "eventType": "teamMemberAdded",
    "tenant": {
      "id": "72f988bf-86f1-41af-91ab-2d7cd011db47"
    }
  }
}
```

Team member added/removed (new)

Your bot will be notified when a team member is added or removed.

Schema example

TeamMemberAdd

```
{
  "membersAdded": [
    {
      "id": "29:1_LCi5Up14pAy65yZuaJzG1uIT7ujYh-jjSTsUNqj0RsZHjLHKiQIBJa4cX2XsAsRoay7va2w6ZymA9-1VtSY_g"
    }
  ],
  "type": "conversationUpdate",
  "timestamp": "2017-02-23T19:37:33.092Z",
```

```

    "id": "f:9ffc452e",
    "channelId": "msteams",
    "isGroup": true,
    "id": "19:efa9296d959346209fea44151c742e73@thread.skype"
  },
{
  "membersRemoved": [
    {
      "id": "29:1_LCi5Up14pAy65yZuaJzG1uIT7ujYh-
jjSTsUNqj0RsZHjLHKiQIBJa4cX2XsAsRoaY7va2w6ZymA9-1VtSY_g"
    }
  ],
  "type": "conversationUpdate",
  "timestamp": "2017-02-23T19:37:06.96Z",
  "id": "f:d8a6a4aa",
  "channelId": "msteams",
  "serviceUrl": "https://smba.trafficmanager.net/amer-client-ss.msg/",
  "from": {
    "id": "29:1I9Is_Sx00-
Iy2rQ7Xz1lcaPKl09eqmBRTBuW6XzkFtcjqxTjPaCmiJ8BVMdBcL9L_RwWNJyAHFQb0TRzXgyQvA"
  },
  "conversation": {
    "isGroup": true,
    "id": "19:efa9296d959346209fea44151c742e73@thread.skype"
  },
  "recipient": {
    "id": "28:f5d48856-5b42-41a0-8c3a-c5f944b679b0",
    "name": "SongsuggesterBot"
  },
  "channelData": {
    "team": {
      "id": "19:efa9296d959346209fea44151c742e73@thread.skype"
    },
    "eventType": "teamMemberRemoved",
    "tenant": {
      "id": "72f988bf-86f1-41af-91ab-2d7cd011db47"
    }
  }
}
}

```

Channel created (new)

Your bot will be notified when a channel is created.

Schema example

```

{
  "type": "conversationUpdate",
  "timestamp": "2017-02-23T19:34:07.478Z",
  "id": "f:dd6ec311",
  "channelId": "msteams",
  "serviceUrl": "https://smba.trafficmanager.net/amer-client-ss.msg/",
  "from": {
    "id":
"29:1wR7IdIRIoerMIWbewMi75JA3scaMuxvFon9eRQW2Nix5loMDo0362st2IaRVrIrPZBv1WdXT8TIFWwmlQCizZQ"
  },
  "conversation": {
    "isGroup": true,
    "id": "19:efa9296d959346209fea44151c742e73@thread.skype"
  }
}

```

```

    },
    "recipient": {
      "id": "28:f5d48856-5b42-41a0-8c3a-c5f944b679b0",
      "name": "SongsuggesterBot"
    },
    "channelData": {
      "channel": {
        "id": "19:6d97d816470f481dbcda38244b98689a@thread.skype",
        "name": "FunDiscussions"
      },
      "team": {
        "id": "19:efa9296d959346209fea44151c742e73@thread.skype"
      },
      "eventType": "channelCreated",
      "tenant": {
        "id": "72f988bf-86f1-41af-91ab-2d7cd011db47"
      }
    }
  }
}

```

Channel renamed (new)

Your bot will be notified when a channel is renamed.

Schema example

```

{
  "type": "conversationUpdate",
  "timestamp": "2017-02-23T19:25:10.172Z",
  "id": "f:c7eaddbe",
  "channelId": "msteams",
  "serviceUrl": "https://smba.trafficmanager.net/amer-client-ss.msg/",
  "from": {
    "id":
"29:1wR7IdIRIoerMIWbewMi75JA3scaMuxvFon9eRQW2Nix5loMD00362st2IaVRirPZBv1WdXT8TIFWwmlQCizZQ"
  },
  "conversation": {
    "isGroup": true,
    "id": "19:efa9296d959346209fea44151c742e73@thread.skype"
  },
  "recipient": {
    "id": "28:f5d48856-5b42-41a0-8c3a-c5f944b679b0",
    "name": "SongsuggesterBot"
  },
  "channelData": {
    "channel": {
      "id": "19:e4039002cc994705b37783c98abb109a@thread.skype",
      "name": "PhotographyUpdates"
    },
    "team": {
      "id": "19:efa9296d959346209fea44151c742e73@thread.skype"
    },
    "eventType": "channelRenamed",
    "tenant": {
      "id": "72f988bf-86f1-41af-91ab-2d7cd011db47"
    }
  }
}

```

Channel Deleted (new)

Your bot will be notified of any channel deletion that occurs in a team it is a part of.

Schema example

```
{
  "type": "conversationUpdate",
  "timestamp": "2017-02-23T19:35:32.847Z",
  "id": "f:32277cde",
  "channelId": "msteams",
  "serviceUrl": "https://smba.trafficmanager.net/amer-client-ss.msg/",
  "from": {
    "id": "29:1I9Is_Sx00-Iy2rQ7Xz1lcaPK109eqmBRTBuW6XzkFtcjqxTjPaCMij8BVMdBcL9L_RwWNJyAHFQb0TRzXgyQvA"
  },
  "conversation": {
    "isGroup": true,
    "id": "19:efa9296d959346209fea44151c742e73@thread.skype"
  },
  "recipient": {
    "id": "28:f5d48856-5b42-41a0-8c3a-c5f944b679b0",
    "name": "SongsuggesterBot"
  },
  "channelData": {
    "channel": {
      "id": "19:6d97d816470f481dbcda38244b98689a@thread.skype",
      "name": "12sss"
    },
    "team": {
      "id": "19:efa9296d959346209fea44151c742e73@thread.skype"
    },
    "eventType": "channelDeleted",
    "tenant": {
      "id": "72f988bf-86f1-41af-91ab-2d7cd011db47"
    }
  }
}
```

Not yet supported

The following capabilities are work-in-progress. We will send updates once these features are added:

- Ability to reply with a message that only the person invoking can see – coming soon.