Team Connect

A WebRTC & Peer JS based simple communication tool

Contents

Overview

Team Connect is a simple communication tool. It is a component that can be added to any Pega 8 application and extends to the end users of the Pega application the ability to chat and talk to fellow colleagues. In a post COVID world the need most enterprises have either opted or mandated to provide work from home capability to their employees. For this distributed work force ability to communicate real time is critical to maintain morale and a degree of connectedness. While there are several standalone communication tools in the market, they are typically server based. Team Connect is a lightweight tool that uses peer – to – peer communication using web RTC standard to connect the workforce.

Key features include –

- **Text Chat –** Simultaneously chat with multiple users who are also logged into Pega via Team Connect in real time.
- **Voice Calls –** Make 1 – to – 1 voice calls between connected users, while still chatting with multiple users
- **Availability –** Set free / busy states that are immediately broadcasted to all fellow colleagues on the same Pega installation.[#]

 # - Team Connect allows users across multiple PEGA installations to engage by defining one of them as the Team Connect availability broker. However online presence is broadcasted real-time to users logged into the same installation. For users on other installations status gets refreshed on demand on clicking the Available button.

# Architecture
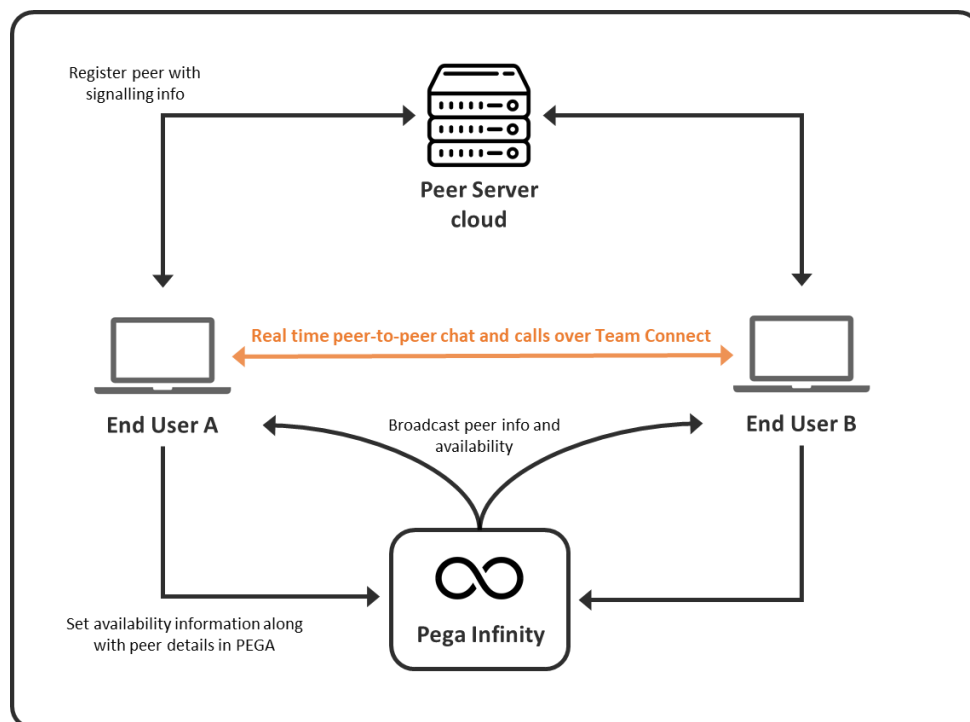
Intended Audience

This document is intended for Pega system administrators and end users. It provides necessary instructions to install and implement the Team Connect component as well as a user guide for end users.

Prerequisites

The component requires Pega 8.3 + installed. On the client side the component is tested on Google Chrome version 83.x. The port 443 should not be blocked by firewall on the client end. Peer Server cloud runs on port 443. For audio calls the microphone should be enabled on the client machine and user must provide permission to the browser to use the microphone for the Pega application when prompted by Team Connect.

Installation

Import the latest Team Connect distribution package via Pega DEV Studio.
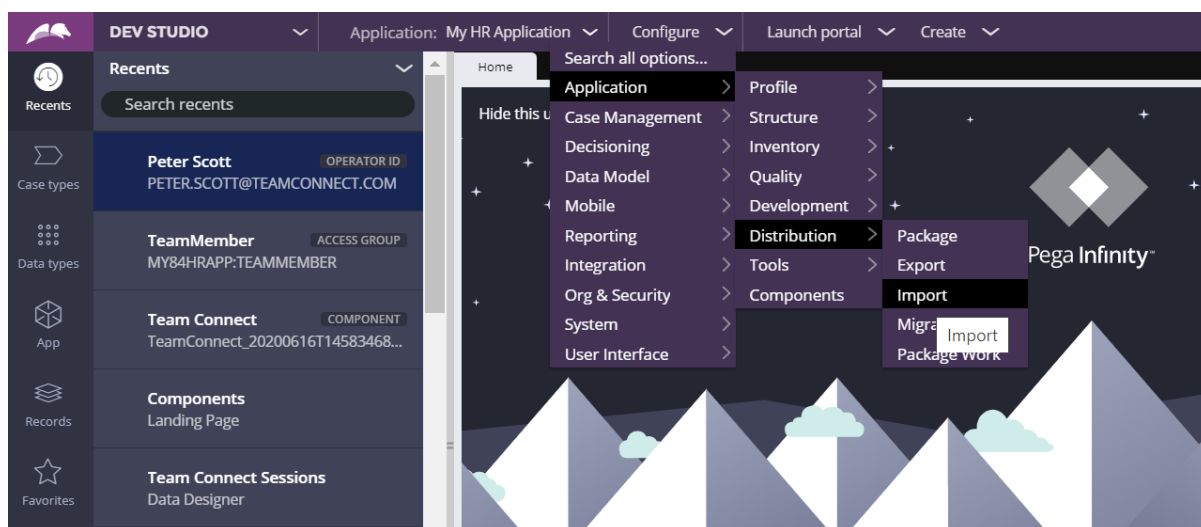
Once imported open the application you want to add Team Connect. Go to the Component section select the Team Connect component and choose the latest version.

Add Team Connect to Portal

Go to App Studio > Channels and select **Case Worker** portal.

Click on the Configure button on the selected template.

From the Header widgets dropdown select Case Manager Portal Header Team Connect and **Submit.**

To add Team Connect to your application specific Header section, include the section *TeamConnectContainer* in the appropriate place in your header. Please note the component is designed to work on a Header based portal.

System Settings

The following system settings need to be updated.

Ruleset	Setting Purpose	Value
TeamConnect	team_connect_serverURL	https://**{host:port}**/prweb/PRRestService/TeamConnectPackage/v1/TeamConnect
TeamConnect	team_connect/debug	false

For TeamConnect on a single server, update the host and port (or domain) in the server URL setting with the current server.

For TeamConnect to engage users on multiple Pega installations, update the host and port (or domain) of one of the servers that will act as the availability broker. Please note each installation must have access to this central installation.

The debug setting enables console logging of different Team Connect events in the browser console. It is defaulted to false. Set it to true to debug connection issues with Peer JS.

The Operator – **TCServiceUser** is supplied as part of the package is used to authenticate the call to the central TeamConnect availability broker service. The same is also configured in the supplied **TeamConnectAuth** authentication profile. Please update password as per your organization's Authentication Policy.

Usage Guide

Once installation is successfully completed simply login with an access group that has access to the Portal configured in the Installation section. Team Connect gadget should show up at the top of the portal.
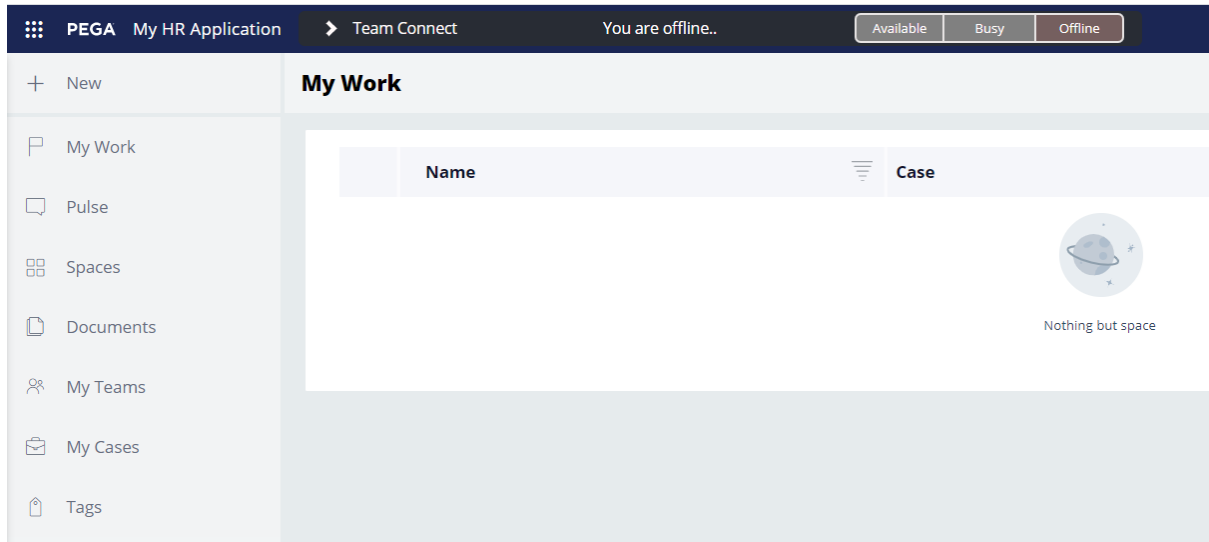

Set yourself available by clicking the **Available** button.
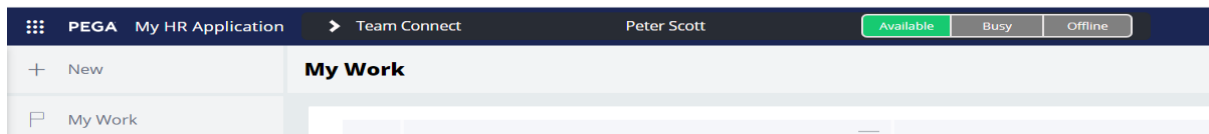
To see who else is available to chat or call expand the gadget by clicking on **> Team Connect**.
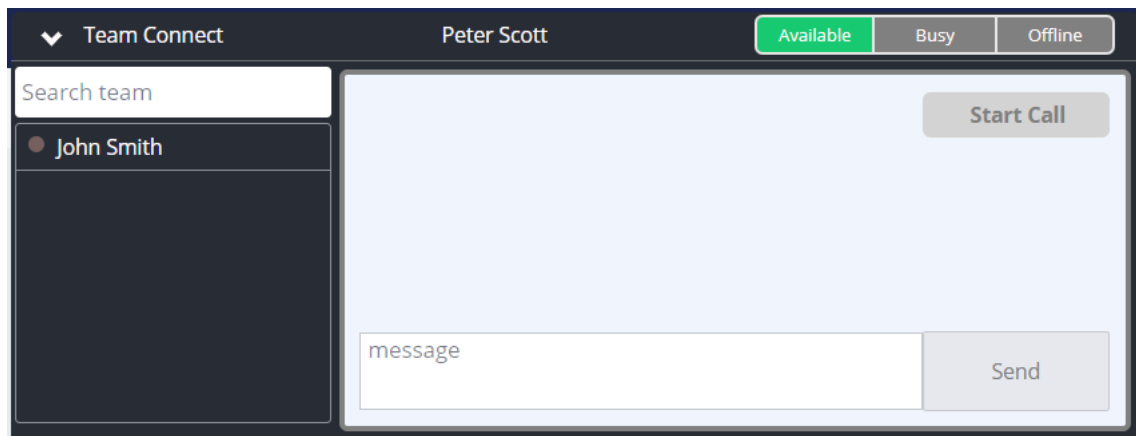

Once other users come online the availability will be reflected on the team members list. Further users can search for a particular team member. If the required member is online – click on the name to start chatting or make a call.
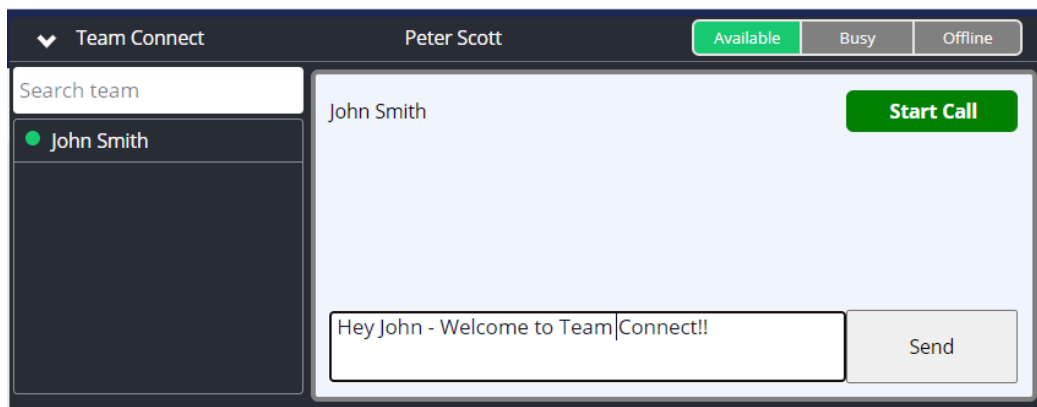
The other colleague will be able to respond to your message after selecting you on their Team Connect.
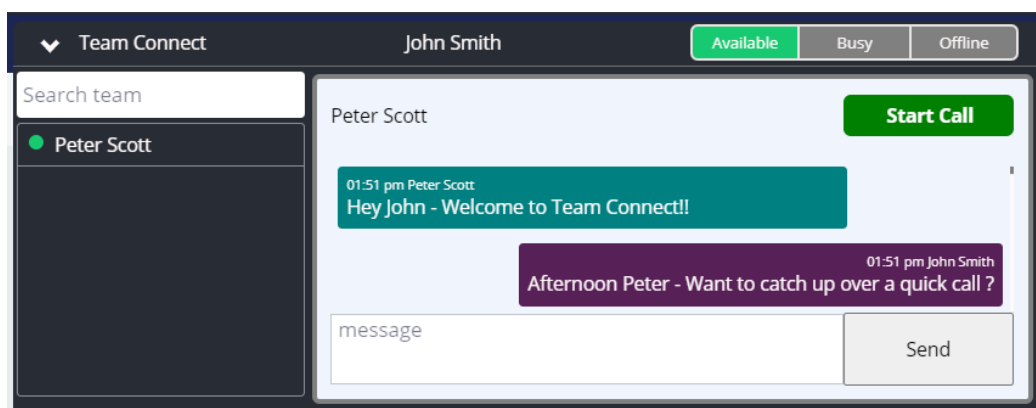
To start a call click on the green Start Call button. This will send a call request to your colleague. Once they accept the call an audio conversion will be started.
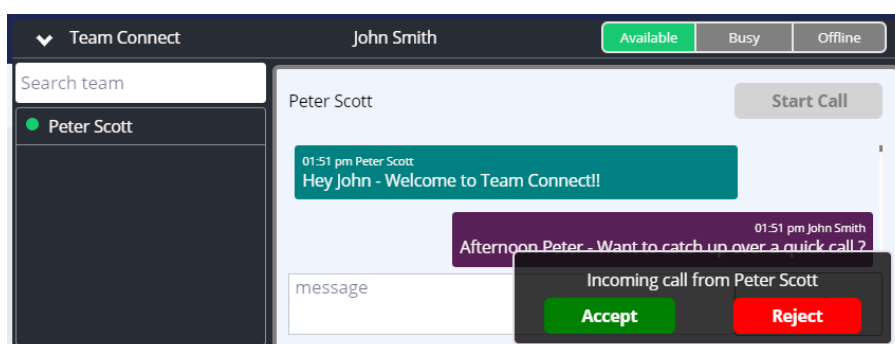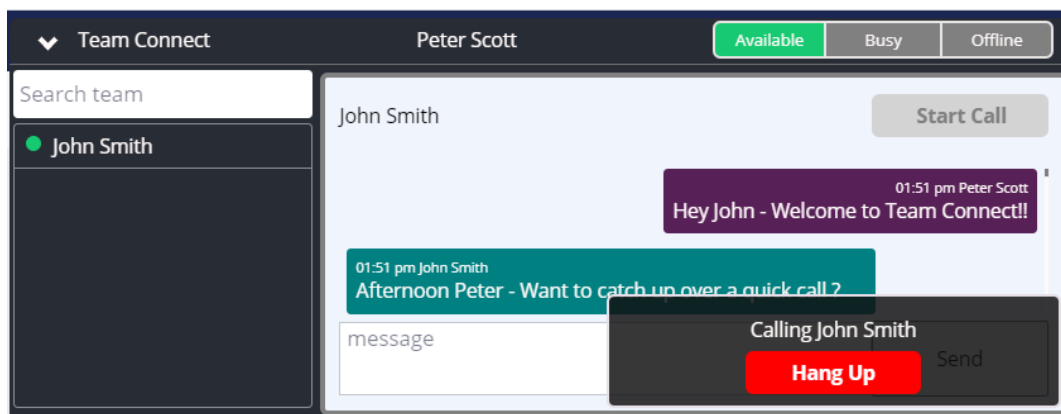
If the browser asks for permission to use the microphone please **Allow** the same.
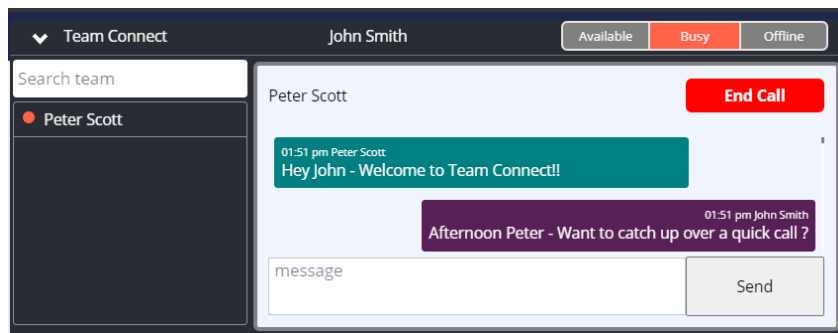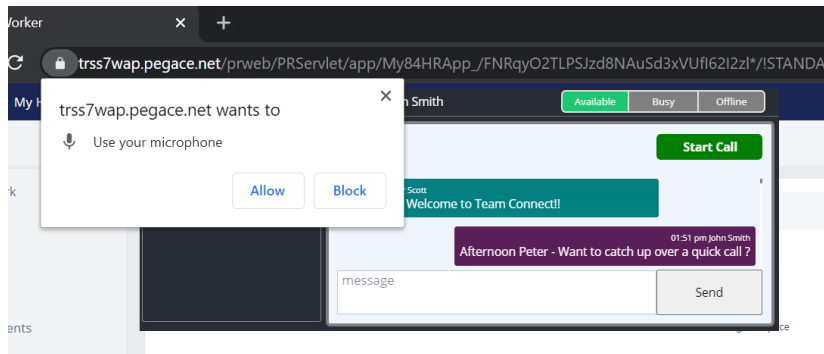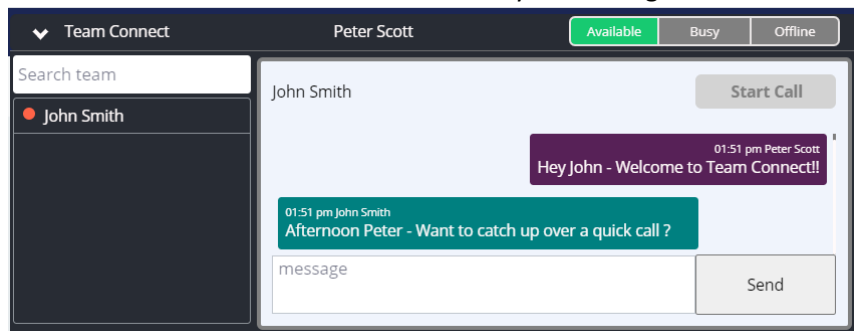

Click on red **End Call** button to end the call. To keep chatting during the call simply type away!
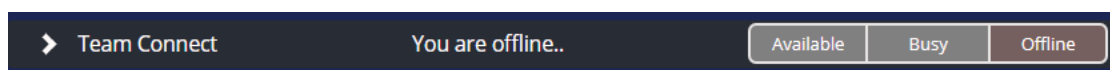
To avoid incoming calls you can set your status to **Busy** by clicking the same.
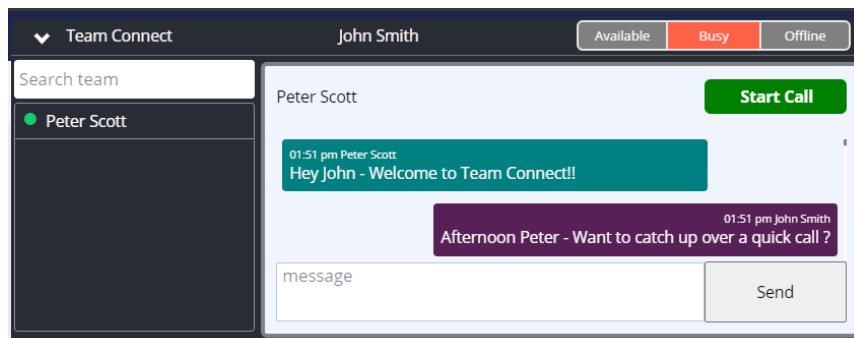
Notice the Start Call button is disabled for your colleague.

To go offline entirely from Team Connect click the **Offline** button.

Team Connect Implementation Guide

Known Issues

Issue #	Issue description	Possible mitigation
01	Team Connect is currently only supported on Google Chrome v83+. It may not work correctly on Internet Explorer or Microsoft Edge.	Switch to google chrome. It may also work to some extent on Firefox and Safari to some extent. But this is not tested.
02	Team Connect is configured but does not show in the mobile version of the application	Team Connect requires a minimum resolution of more than 1024 px to work and screen size of 8" or more. Below this resolution the component is not rendered. If you are on a tablet like iPad 10" or 12.5" or any other 8" laptop try switching to the Landscape mode
03	Since the browser is responsible for updating the session status, if the browser closes suddenly or network connection to the end user is lost, the status will not reflect correctly to other end users.	An administrator can login to the Team Connect broker instance of Pega 8 → go to the Team Connect Sessions data table and remove the session id and of the user and update the session status to Offline.
04	In a multi PEGA installation setup where one of the installations is the server, specific user who has access to more than one installation, is able to use Team Connect from one but cannot become available for another.	Team Connect sessions use User Identifier, Organization name and Application name as key to register sessions. Try to create a new operator id for the second installation or update the application name.
05	In a multi PEGA installation setup, I get the real time free/busy of other users on my application, but the status of users on other applications is showing incorrectly.	This is a current limitation. Please click on the Available button on the top right status bar. This will refresh the availability of all users across all installations.
06	All chat messages clear when my colleague goes offline.	This is a current limitation. Chat persistence and chat history will be added to a future version.