

**Mayville State University**

**Zoom Implementation**

**Business Case**

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| --- | --- |
| Business Case Short Name: | Zoom Implementation |
| Business Unit/Program: |  |
| Business Case Version: |  |
| Document Author: | Christine Gonnella |
| Date: | May 7, 2019 |

Admissions section > could be strengthened by adding a focus on enrollment services join staff meetings from the road. Coaches could also do this. Somehow add community? (remember that this is part of the mission)

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# Executive Summary

* **Business Need**: Faculty, staff and students need reliable, easy-to-use video conferencing and remote support solutions.
* **Solution Alternatives**: NDUS provides Bb Collaborate Ultra, Skype for Business and Pexip
* **Recommended Solution**: Zoom video conferencing solution is recommended
* **Implementation Approach:** A trial occurred during 2018-2019 in which twenty Pro licenses were purchased.For 2019-2020, we will purchase 55 pro licenses to distributed among faculty, staff and students, based on need. One Zoom Room license is included in the proposal as well, to trial the use of Zoom Rooms as we consider active learning implementations in our classrooms. The MSU Technology Support Team will continue to provide training and support for Zoom.

# Recommendation

I recommend the ongoing use of Zoom based on the growing need for reliable video conferencing and remote support solutions.

I also recommend that NDUS consider Zoom for a system-wide implementation.

# Business Need

## Organizational Fit

### Consistency/Fit with Organization’s Mission

**MaSU Purpose**: To deliver flexible programs, instruction and student services to meet the needs of the individual.

**Use of video conferencing has delivered flexibility for our Education faculty and students as they engage in remote, synchronous teaching and learning.**

* 1. Redefine and strengthen the recruitment and admissions process.

**Video conferencing can be used to recruit students by supporting real time, face to face conversations at a distance. In addition, a remote-control feature can allow admissions staff to support prospective students in the application process.**

2.2 Technology use across the institution reflects current social, instructional and work force practices.

**The use of video conferencing in our classes allows faculty to model best instructional practices in real time and face to face via video feeds. This practice has minimized the barriers of distance and technology and allowed students to interact naturally with one another during and outside of classes.** **Social bonds between students are built while using the tool in the classroom setting and in breakout sessions as they progress through a semester.**

2.2.A Technologies used in the classroom (virtual and physical) support technology reflective of the student population and effective instruction.

**Video conferencing is a ubiquitous method of communication, present in a large percentage of professions. Students who use Zoom with their own accounts have valuable experience with a reliable tool.**

2.2.B Technologies used improve efficiencies across the institution and are reflective of current workforce practices.

**The use of a solution that provides video conferencing, lecture capture and remote-control tools could be an efficient way to use multiple functions for one program and one annual fee.**

### NDUS IT Goal(s) Alignment

**NDUS Vision**: Leading the nation in educational attainment through access, innovation and excellence.

**NDUS Goal 2**: Provide programs people want, where and when they need them.

**Video conferencing tools provide access to education regardless of location.**

## Environmental Analysis (include Business Process as applicable)

NDUS CTS provides and supports Blackboard’s video conferencing solution, Collaborate Ultra. However, reports of user experiences at MaSU have been overwhelmingly negative. Complaints have originated with faculty, students and staff, including upper administration. Problems include video and audio lag and other issues that persist despite troubleshooting attempts like muting mics, turning off video feeds and connecting directly to network ports. For example, with 30 students in a Collaborate Ultra session, the lag made it impossible to move users to their respective breakout rooms. Attempts to diagnose issues unique to MaSU were unsuccessful.

## Needs Analysis

The number of remote students and faculty is increasing as we strive to meet the needs of our students through flexible programs and instruction. MaSU is moving toward a more inclusive model of interaction in which remote attendance and participation in classes and meetings is supported and encouraged. We are striving to reduce the barriers to engagement that are caused by distance and technology. However, currently held technologies do not provide the reliability and features that are needed to support this goal.

Specific needs of each population are listed below. These lists were written based on ten years of experience supporting MaSU faculty, staff and students. Comments were solicited from the top ten faculty users of Zoom. A specific use case is also included in this section.

**Faculty Needs:**

* Easy to use, reliable video conferencing platform for synchronous, remote classes
* several video feeds on screen simultaneously to support face to face interaction online
* breakout rooms for small group work
* recording classes and/or lectures as well as student recordings
* Integration with the LMS
* Robust mobile solution
* audio/video feedback options for faculty to respond to student work
* training that is offered on campus can be broadcast and/or recorded when attendance is not an option
* search committees – interviewing candidates at a distance
* technical support during live classes, in the form of moderators

***Use Case: Remote Instruction***

The Education division offers methods courses that meet weekly in a hybrid format. Participation in these Education classes requires that students maintain a video feed whenever possible in order to promote real-time engagement. A vital instructional strategy for these classes is small group discussion. Additionally, faculty need to model classroom management and instructional strategies as close to reality as possible. Certain features, such as multiple video feeds and breakout rooms, as well as consistent reliability, were essential for the tool that was chosen.

Initially, only IVN rooms were used for hybrid delivery of these courses but students were required to travel to an IVN site near them. This requirement was no longer meeting the needs of most of our remote students. Instructional technology support proposed a video conferencing solution and attempts were made to work with existing video conferencing tools: Pexip, Bb Collaborate Ultra, Skype for Business and IVN rooms.

Use of IVN sites require that participants attend in person, unless their video conferencing program, Pexip, is used in combination with an IVN call. Equipment in the current IVN rooms is getting older and Polycom use is inflexible and limited to reserved time. This makes testing computers, sound and video equipment prior to class time very cumbersome. It also prohibits students from meeting remotely on their own time. Furthermore, Pexip does not have several of the features needed for quality online teaching and learning.

Despite its shortcomings, Pexip was used in combination with IVN rooms during the 2017-2018 academic year. Its stability was an improvement over Bb Collaborate Ultra, but Pexip did not have breakout rooms for remote small group interactions. We attempted to utilize Bb Collaborate Ultra for that purpose, but poor performance sent the instructor back to Pexip. We tried using Skype for Business as a workaround for breakout sessions, but this was fraught with problems as well; students were dropping calls and/or were unable to login to the conference. After trying this for a few weeks, we decided to go back to Bb Collaborate Ultra to use the breakout room feature. Thirty students logged in and the system was so bogged down it was impossible for the moderator to move users into their respective breakout rooms.

As illustrated, use of the NDUS-provided video conferencing tools caused high levels of frustration for faculty, and more importantly, students. A trial of Zoom took place in Fall 2018 and continued into Spring 2019. MaSU Education faculty members choose Zoom. See their comments below:

**Student Needs:**

* Ability to join remote classes using a reliable video conferencing tool
* Meet with class members at a distance for study groups and/or group projects
* Efficient and effective support for technology used in instruction
* Technical support during live classes, in the form of moderators
* Robust mobile solution

Twenty-nine Education students who have used Pexip, Skype Bb Collaborate Ultra and Zoom over the past academic year responded to a survey about their experiences with these technologies. Students at MaSU were provided with a free account rather than a Pro account.

* 100% found Zoom easy to use (79% extremely easy, 21% somewhat easy)
* 73% used Zoom outside of the class time to meet with fellow students.
* 82% joined a Zoom meeting hosted by another student.
* 83% were able to perform the tasks they needed with the basic (free) account.
  + 93% used screen share,
  + 90% used the Chat,
  + 66% reported using breakout rooms (in fact all students who participated in the Zoom sessions used the breakout rooms during class)
  + 2% used the remote-control feature
  + 11% recorded sessions
* 100 % rated their Zoom experiences as positive (79% extremely positive, 21% somewhat positive)..

**Staff Needs:**

* Departmental meetings should include a video conference component for those who cannot attend in person
* Meetings can be recorded for those who cannot attend synchronously
* To provide student, staff and faculty support by taking remote control of their computers
* Search committees – interviewing candidates at a distance
* technical support during remote meetings

# Solution Analysis –

## Description

A reliable video conferencing and remote support solution will be employed.

## Benefits, Goals and Measurement Criteria

|  |  |
| --- | --- |
| **Category** | **Benefit** |
| Operational | * Increased use of synchronous video conferencing solutions to a multitude of problems. * Improved operational efficiency due to the use of video conferencing solutions, such as reduced travel time and costs * Enhanced quality of service, specifically technology support service |
| Student | * Improved student satisfaction with decrease in technology-induced frustration * Increased student retention in programs that offer hybrid classes * Increase in student recruitment due to the personal connection that video conferencing can foster |
| Staff | * Increased staff satisfaction * Organizational culture that promotes inclusion of remote personnel in all campus meetings * Planned and unplanned meetings with students * Small groups in-person who wish to record their meetings for future reference and/or asynchronous attendees * Small groups in-person with a few individuals joining remotely * Groups of entirely remote individuals meeting online * Small and large groups distributed across the state and beyond |

## Costs and Funding Plan

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Cost** | **Value** | **Budgeted** |
| People | * Implementation and maintenance * Technology support * Training | $ unknown  $ unknown  $ unknown | YES  YES  YES |
| Software | * License fees | $ 4,950 | Yes |

Below are the potential funding sources.

|  |  |  |
| --- | --- | --- |
| **Funding Source** | **Amount** | **Notes** |
| Academic Affairs / Extended Learning | $4,950 | July 1, 2019 to June 30, 2020  55 Pro licenses for $90/each plus 8 free  One Zoom Room free |

## Risks

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Impact (on cost, time, or scope)** | | | | |
| **Probability** | **Very Low=1** | **Low=3** | **Moderate =5** | **High=8** | **Very High=10** |
| Very Likely=5 | 5 | 15 | 25 | 40 | 50 |
| Probably=4 | 4 | 12 | 20 | 32 | 40 |
| Maybe=3 | 3 | 9 | 15 | 24 | 30 |
| Low=2 | 2 | 6 | 10 | 16 | 20 |
| Very Unlikely=1 | 1 | 3 | 5 | 8 | 10 |

Utilizing the table above, below are the risks identified with this business case.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Risk Description** | **Probability**  **1-5** | **Impact**  **1,3,5,8,10©** | **Risk Score (PxI)** | **Actions** |
| MaSU implements Zoom and then decides against a renewal in 2020 due to licensing costs or some other reason. | 3 | 5 | 15 | Plan to include cost in institutional budget |
| Continued growth of Zoom use among MaSU community will increase licensing costs. | 5 | 8 | 40 | Anticipate growth in budget planning. |
| Increased development of hybrid classes across campus will require more tech support and moderation. | 5 | 10 | 50 | Add moderator duties to staff member job description and/or create a part-time position. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Campus network infrastructure won’t support growth in Zoom use. | 1 | 10 | 10 | Monitor network activity. |
| Not well received or underutilized beyond current user base. | 2 | 3 | 6 | Gradual implementation and other options are available if needed. |

## Constraints

The following are constraints identified for this effort:

* NDUS supported video conferencing solutions already exist.
* Current cap on project costs is $5,000
* Personnel to support implementation of evening classes is limited to one person. This may become overwhelming as use increases.
* Could produce a need for another support position

## Assumptions

There will be no major, unforeseen budget cuts in the next twelve months.

# Available Options

**Option 1 – continue to use NDUS-provided solutions**

While this option would appear to be more cost effective, costs in student and faculty satisfaction are steep.

**Option 2 – Continue and grow use of Zoom**

Zoom is a reliable tool that has several features needed to support synchronous interaction and engagement with remote students. Zoom allows us to show up to 49 participants on the screen at once. Names are displayed automatically, which helps us all get to know one another. Video and audio are extremely stable. This reliability has minimized the barriers of distance and technology and allowed students to interact naturally with one another during and outside of classes. The virtual breakout room feature has also been instrumental in utilizing group teaching strategies so that students can employ social learning. In addition, students were provided with their own Zoom accounts, allowing them to easily set up their own meetings to interact outside of class for group projects, study groups and peer support. I have attached a survey of Education students who have used Zoom this semester.

Experimentation with Zoom under the same conditions as other tools has resulted in significantly improved experiences. Zoom “just works,” and seems to be ubiquitous across the nation. Even within the NDUS several institutions are implementing Zoom in some capacity, including the following:

* University of North Dakota – sitewide implementation
* North Dakota State University- main campus
* Minot State University
* Valley City State University

Also,

* University of Jamestown
* University of Mary

Mayville State conducted a trial of Zoom during 2018-2019 academic year which include twenty Pro licenses in Spring 2019.

Mayville State University has selected Zoom because it uniquely provides:

* an adaptive video layer architecture, which means that each user’s experience is automatically tuned, in real time, for his or her particular bandwidth and computing situation.   Whether that user is on a mobile device, a desktop device, or in a conference room, Zoom provides the best video quality the user’s environment can support, without sacrificing audio.
* Video conferencing that spans all use cases an environment – conference room systems, mobile devices, and remote control.  This allows us to reduce vendors while providing a common product interface across all video / web conferencing applications
* provides an assisted remote-control feature (meaning that the user must give permission) that allows us to assist our students with class assignments, technology problems, financial aid and many other computer-related needs. This feature is included at no additional cost with the video conferencing platform, therefore eliminating the need to find another vendor for this invaluable support product.
* superior performance with less dedicated bandwidth than other video/web conferencing solutions.  This allows us to use Zoom broadly without adverse effects on our network.
* Integration with Blackboard Learn
* potential ability to replace some of our Polycom hardware defined conference rooms with software defined Zoom rooms, in which the software is hardware agnostic.
* costs for licenses for Pro users or room connectors only. There are no equipment, installation, or maintenance costs; software updates and support are free with the licenses (although varying levels of support are offered based on number of licenses).

A Zoom trial in Spring 2019 provided the following feedback from faculty, staff and students:

***Faculty Comments:***

“Zoom is easy to use which saves time. It is convenient when the program gives you the invite of the connection information to send out to participants.  Connection quality has always been good.”

-- Dr. Andi Dulski-Bucholz, Dean and Chair, Division of Education

“Zoom is an easy tool to use while educating students who are at a distance. I have found it to be very user friendly for both myself as the instructor and for the students. We use Zoom to meet on a weekly basis and is the way that we conduct class period. The features that Zoom has to offer me as an instructor is exactly what I was looking for. My absolute favorite feature of Zoom is the breakout rooms. I am able to put students into small groups to collaborate with each other and to engage in deep conversations. Those things can’t happen when it’s 30 students and 1 instructor in one single session. As an instructor I can jump in and out of those rooms to be able to ensure work is being completed in other groups. The breakout rooms allow me to hear everyone’s voice and opinion as well as get to know my students on an individual basis. It allows me to provide my distance students personal service.

Another feature I like with Zoom is the screenshare. I can share my screen with students so that they can see what it is I am doing and how to complete a project. Students can also share their screens so that they can present material, share a cool project, or take notes for the class. Zoom allows for the “virtual” classroom to come alive.

I’ve used other tools in the past and none of them compare to Zoom. Other video conferencing tools don’t have the same features and don’t allow for much interaction with and for students other than the sit and get lectured at. I’ve also found that those other tools are very spotty and lose connection a lot. It ends up being a headache for both the instructor and students. With Zoom that has been taken away. Students have expressed how easy Zoom is to use and navigate and that they still feel like they are in a classroom even over the computer.

It is without hesitation that I would recommend the university continue to purchase Zoom.”

--- Carly Theis, Education instructor

My primary use of Zoom this semester (Sp2019) has been for the BUSN 482 Business Comprehensive course, which is the capstone course for our Bachelor of Applied Science (BAS) degree. Most of these students are online (distance) students. Each student and I work together to identify/specify a semester-long project, for which the student either (A) does research to learn deeply about a managerial-level business topic that s/he believes is or will be applicable to his/her career; or, (B) does a “new-task” managerial-level project at his/her place of employment (where a “new-task” project is one that is meaningfully beyond the student’s prior experience).

In addition to writing up his/her project, the student makes a presentation, which typically ends up being a 60 – 90 minute conversation between the student and me (as well as any other faculty members attending). While the distance students do have the option of coming to MaSU to make their presentation in person, the majority of them make their presentations via videoconferencing.

Prior to this semester I used Blackboard Collaborate or Blackboard Ultra for these presentations. However, in all cases I ended up having to use a headset to prevent echo, and sometimes students had to, also. The video and audio were both often delayed and/or out of sync, and the Blackboard videoconferencing applications both seemed to require more bandwidth than many of the students had available to them.

This semester, neither the students nor I experienced the problems associated with the two Blackboard applications. Moreover, joining the meetings seemed more intuitive for the students. When asked, all students indicated that they’d had no trouble navigating from the point of first clicking on the Zoom meeting link in Course Content to joining the meeting.

--- Robert Tangsrud, Business Division

Overall, Zoom is working well for our remote connect meetings to connect with students and with off-campus faculty. We have not experienced any streaming delays or issues as we have with other platforms in the past and being able to share screens with one another is key without having to upload a file in to the platform which had taken quite a bit of time to do so in the past. Also, video streaming is working well without delay even when all participants have their video turned on.

--- Tami Such, Division Chair, Nursing

***Education Student Comments (anonymous):***

* I find Zoom to be a valuable tool in education
* I really like having the names of people on their screens! I really like breakout groups during class.
* The only complaint I have is that our zoom meetings we create are limited to 40 minutes. Depending on the amount of time we had and what project we were working on, that was enough, but sometimes we would get cut off.
* The only issue I had with Zoom is that it only allowed 40 minutes. You could sign-back in but it seemed to disrupt the conversation. It's a minor thing.
* If there are more features that could be utilized with a paid account, our online tuition fee should include a university Zoom account since it is how we meet for class.
* This is far better than Pexip! I enjoyed that names are present on screens and that we can access our Zoom accounts out of class.
* The only issue I had was that I had to use an account I set up myself because I couldn't get a link for a Mayville account. (Student did not contact support for assistance with this problem)

***Staff Comments:***

I use Zoom because it’s easier to create meetings on the fly rather than having to login to Blackboard and go into a course to create a Blackboard Collaborate Ultra session. Zoom also has the ability to allow me to take control of another user’s computer if necessary. For example, if an instructor is having a Blackboard issue, I can take control of their computer using Zoom to help troubleshoot.

-- Alissa Perkins, Distance Programs Support Specialist

# Signature Page

**Institution CIO Approval Signature and Date:**

I have reviewed and approve this project/initiative.

|  |  |  |  |
| --- | --- | --- | --- |
| Printed Name |  | Date: |  |
| Signature: |  | | |
| Comments: | | | |

**NDUS CIO Approval Signature and Date: (use if necessary)**

I have reviewed and approve this project/initiative.

|  |  |  |  |
| --- | --- | --- | --- |
| Printed Name | Darin King | Date: |  |
| Signature: |  | | |
| Comments: | | | |