Introductions by the convener
- Phil Ray
- Bill Wrobleski

Goals for this session
- Give you an idea of how Michigan has balanced Central and Distributed IT
- Introduce you to a major new project that is re-evaluating that balance
- Give you an view of what we think is possible, and what barriers we face. Ask for IT Commons, especially, on this point
Michigan is one of the larger universities in the US.
Not the largest, but certainly up there.

In 2009 we crossed the billion dollar threshold for research expenditures and we’re still growing

35 million square feet
Our academic program has comparable scale -- it’s very broad. Programs not Program. And the quality is very high. Many programs ranked top 10 in the nation.

Graduate Programs in the top 10 include
- Engineering
- English
- Geology
- History
- School of Information
- Law
- Math
- Political Science
- Psychology
- Sociology
- Medicine
- Nursing
- Pharmacy
- Public Health
- Social Work
Most of the action in the U happens out the edge. And central coordination is done with a very light hand.

This will be familiar to some of you. Other universities, probably many of yours have a substantially decentralized organization.

At Michigan, nearly all the power, and the responsibility for both academic and operational decisions -- in the hands of the Deans and faculty of the individual schools.

Budget too.
At Michigan, decentralization isn’t an accident…

… it’s a strategy

Individual Schools and Colleges do their own...
- student recruiting and admissions.
- their own career services office
- their own public relations people
- faculty recruiting
- HR staff
- their own fundraisers,
- their own grant administrators

IT at Michigan follows this same decentralized model.

That really goes back to the end of the mainframe at Michigan. Mainframe computing system was wound down in the 80’s and 90’s. Most IT was moved right out to the edge of the organization, into the academic and business units.

Today every one of our 19 schools and colleges has their own IT group, and those IT
Beyond 19: Engineering, Medicine, Public Health, and our liberal arts college have many academic departments, and most of those have their own IT operation, again reporting to local academic leadership.

Amazingly it’s just as distributed, perhaps more so on the administrative side of the institution!

Physical Plant
Housing
Development
HR
Finance

More than 70 IT groups within U-M’s administrative operations. 70% of those operations are three people or less.

Overall, campus has more than 100 independent IT groups.
Now we do have a central IT organization as well. E.R.P. systems. E-mail, Web services, Phones and Networks.


Spending most of our effort on more basic IT services.


Although Central IT does handle networking for much of the university, individual units also do their own thing, even for this very basic service. Engineering and Business schools run their own wired/wireless networks.
Local IT groups are doing the basics like running e-mail and calendar, and making lives difficult for students by taking different approaches for student clickers.

So with multiple groups focusing on all of these fairly common, non-specialized IT services, you can imagine that the same wheels are being invented over and over again.

We think we’re on the far end of the spectrum for a very decentralized, very distributed university IT environment. But it’s becoming clear that our approach needs to really shift.
Bill

As the economic crisis of the last two years has unfolded. Cuts from state funding seem likely to get steeper as the federal stimulus dries up. We have been increasing tuition, but modestly. And we have been increasing financial aid resources even more.

The good news, such as it is:

• Michigan’s had a decade of tough fiscal reality, and we’ve developed a good fiscal discipline.
• Lot of practice in re-evaluating “business as usual”, making cuts
• and continuing to support very strong academic programs and a world class research effort.

So the the response of the Michigan’s leadership to this crisis has not been to “circle the wagons” or hunker down into survival mode.
Instead they’re looking for investments to make. For strategic moves that will position us to be more competitive going forward. When this economic downturn is finally over, they expect that the University of Michigan will have made up ground on many competitors. Two examples:

Michigan purchased a former pharmaceutical complex from Pfizer. $108 million dollars – an incredible bargain. 28 buildings covering nearly 2 million square feet. 1.2 million square feet of high-end research space will help us grow our research capacity by 10%. We expect to add 2,000 faculty and staff jobs.

And we’re recruiting new faculty not just in the medical area, but across the university. U-M’s president has launched a program to add 100 new faculty positions to conduct interdisciplinary teaching and research. We’re bringing in some of the world’s best faculty, and even though budget pressure is significant and growing, we’re have not had to resort to hiring freezes, wage freezes, or cuts in faculty positions.
So with...

Smaller and smaller state funds
Need to be conservative with the spending of endowment funds
Commitment to growing financial aid and keeping tuition increases modest

Where are are going to get the funds to make new investments?

We’re going to become much more aggressive about re-allocating existing funds. As part of this effort: project called “IT Rationalization”.

Our Deans asked for this project – for savings on IT expenses.

Executive sponsors: The Provost, who is our chief academic officer, and has responsibility for the University's academic budget, as well as our CFO.

Some things we found:

- About 60% of our spend is at the edge of the organization
- 10-20% of our overall spend can be identified as directly tied to research and teaching

- We have 40 different e-mail services on campus. How much meaningful differences do we have among those e-mail systems.
We all knew Michigan’s IT was fragmented, but none of us could see the whole picture. Accenture helped us build that complete picture. asked what services are you delivering? Are you doing this? Are you running that?

Now we have a much better view of the problem (and how silly it’s gotten).
A New Way to Look at IT Services
I’m going to talk about approaching rationalization from the edge of the organization.

Reaction from some of my peers out at the edge of the organization is ‘We’ve been doing “doing rationalization” for a long time’.

And it’s true that many local IT groups have have been grappling with sourcing decisions. We’ve been working to make the best decisions on new services and revising existing services.

When I started at Natural Resources and Environment, I was asked to reshape the IT operation, to make it more responsive to the day-in, day-out needs of the faculty and staff it served. Communications and customer service were bad.

Looking at the operation I found it was actually pretty well resourced. But about 70% of the effort was concentrated on running back-end infrastructure. There was little left to provide effective support to faculty and staff in their daily work.
So I started working to change that around, beginning with a hard look at the broad scope of services that were being run in-house.

- how much value those services were bringing to our faculty

- what options we had for sourcing and delivery.

morphed into a long-running strategy. Three key legs to this strategy:

1. Shift our default sourcing behavior. We work to take every opportunity to use central or shared services. If we can make it work, we do.

2. Keep a local face on these services. We handle provisioning, customer service, and first tier of tech. We keep the relationship with our users. But we also try to not get in the way. If we don’t add value, or if it’s not really IT, we don’t have to insert ourselves.

3. We invest much more effort on engagement with other groups on campus, including central IT, and now the emerging governance process. And we use that engagement to create and influence new opportunities.

At one time we ran our own (finger count):
Several of those services we were able to simply shut down, like workstation backups. They weren’t providing great value to our users.

We found that we could move other services to Central IT.
- Email was an easy move

On the other hand, I spent about 7 years on several campus storage initiatives before the launch of a production file service for campus that would be a good replacement for our local file servers.

Oh, I don’t want to forget a few things that we do as a slightly different kind of partnership. Our own student computer lab and poster printing service are things I really view as partnerships with central IT, not as a service I buy into.

But in all cases, we’ve had positive migrations. Users often don’t notice. Sometimes they notice the improvement.

Even when users don’t notice the direct impact, we have found powerful results. We
In addition we’ve been able to give back to the mission of our School in other ways.

We shrunk our staff from four FTE to three. And the school has been able to increase it’s staffing in our communications office. Today we have a much more competitive web presence. Not by investing more in IT infrastructure, but by investing less.

We moved into smaller office space. Our old space was re-purposed for a growing research group.

And our server room has been completely decommissioned. It’s becoming a cold room for research samples.
So that’s a nice story, about rationalization initiated from the local level. But although my own school is relatively satisfied with our IT environment, this can’t last. We can’t realistically continue this incremental pace of change. The budget demands are too great and the competitive environment is changing too rapidly.

1. Locally. I still have staff tied up in the wheel-reinvention business. That includes running our own printing infrastructure and or own desktop deployment system. The next big demand from our faculty can emerge without much warning. That can be a major research initiative or a decision to take major steps in blended or distance learning. I don’t want to be stuck running generic, basic IT systems and become the bottleneck for innovation.

2. Campus. I know from an organizational standpoint that School of Natural Resources simply cannot be very successful if Michigan is not successful. And Michigan has to be more competitive and cost efficient.

So that leads us back to the campus IT rationalization project.
Michigan’s campus-wide rationalization effort is just getting started. We have some plans and recommendations, and we’re evaluating which ones to launch on what timeline. And we’re engaging some of the organizational issues that are critical to success.

This is what we’re worried about...
Without the right funding model...

... Progress will be limited
The edge adds value today:
- Small-scale, close relationships with individual faculty. That context shapes services to be more effective

- That same closeness infuses a sense of urgency and of common purpose in the operations.

- Communication cycles can be much tighter. How many of you taken what could have been a complex issue and solved it quickly with a partner in the course of a phone conversation. And how many of you have seen a similarly complex process take days or weeks to be resolved when piped through e-mail or a ticket system.

Even at fairly low levels of the service stack – let’s take the network, geography and using the edge matters. I am all for consolidating data networking into the center of the organization. But I am going to work to keep a local role in that service. Because when one of my faculty gets moved to a different office in the building. And that requires a network port to be activated, I know that my desktop staff can put that patch cable in place and have that network jack activated within minutes. Or we can wait days for the order processing and the truck to be dispatched from the other side...
Central IT has to get really good at...

... Sourcing
IT Offerings have to meet reasonable quality expectations…

… True for Central and Unit Offerings
IT has to be…

… Responsive & Agile
Broader Themes & Takeaways

…for the Edge

…for Central IT
THANK YOU