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WORK at LIGHTSPEED

Taking the Plunge: One University's Journey to CMDB

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Agenda

- Getting buy-in from administrative and technical stakeholders
- Developing the plan (without a project manager)
- The beauty of the “new” Discovery
- Credentials, credentials, credentials
- Sticking to the plan

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Speaker Introduction



NAME: Shannon Valerio

TITLE: Director, IT Support Services

FUNCTION:ITSM Coordinator/Facilitato

COMPANY: University of Denver

Experience: 19 years in IT Support Services, 3 years in ITSM Management/Development

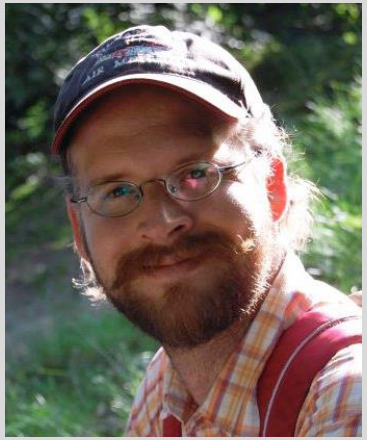
Expertise: All IT Support (Help Desk, Field Support, Training), IT Service Management

Achievements: Assisted in rolling out ServiceNow as primary system administrator; implemented incident, problem, change, knowledge, service catalog and now CMDB

Current Projects: Continued process improvement, rolling out Asset Management.

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Co-Speaker Introduction



NAME: Kent Hogue

TITLE: ITSM Systems Analyst

FUNCTION: ITSM Software Facilitator

COMPANY: University of Denver

Experience: 14 years in IT/Web Development, 2 years in ITSM Software Development

Expertise: ITSM Systems Analysis, Development, & Management. Web Development & Integration Solutions

Achievements: Primary contributor in ServiceNow development and integration at DU; helped facilitate CMS, web service & cross-platform integrations, service catalog development, and now CMDB

Current Projects: Continued process improvement, rolling out Asset Management.

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My Company



NAME: University of Denver

INDUSTRY: Higher Education

The mission of the University of Denver is to promote learning by engaging with students in advancing scholarly inquiry, cultivating critical and creative thought, and generating knowledge.

About DU:

- Founded in 1864—just a few years after the city of Denver itself was founded
- Home to more than 11,500 students hailing from all regions of the United States and 83 other countries.
- 2017 NCAA D1 Hockey Champions!

About University Technology Services

- Central IT Organization
- All dev ops, customer service, telecomm, info security, web ops, and academic computing.
- No formal ITSM department, but service is our primary focus.

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Objectives and What You Will Learn

Objectives

- Walk you through a challenging, but successful CMDB implementation, with key takeaways that will save you time, frustration and lots of head scratching.

What you will learn

- How to get buy-in from administrative and technical stakeholders
- Learn about the CMDB implementation process from start to “finish”
- Key lessons (and pitfalls) in using ServiceNow Discovery for CMDB
- Considerations in rolling out other modules in ServiceNow that leverage CMDB

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Challenges and Goals

- Challenges
  - Lack of transparency in several processes, most notably Change Management
  - Long, unplanned outages due to lack of collaborative planning
  - No service mapping or server inventory (incomplete Excel spreadsheets)
  - A Help Desk that was often in the dark
  - Low external security audit scores
  - Rogue servers most likely existing across campus – needed to bring them in and ensure compliance

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Challenges and Goals

- Goals
  - Implement a functional CMDB by Spring 2017
  - Overhaul Change Management process using meaningful Configuration Items with complete buy-in from all departments in UTS
  - Up security score by rolling out Asset Management and Software Asset Management to track licensing
  - Give Help Desk full insight into services and outage information
  - Metrics? What metrics?

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Why now? Why not earlier?

- Earlier Efforts
  - 2014 Trial: Discovered over 36,000 CIs
  - Cost prohibitive (charge per CI)
  - SerivceNow workshop in 2014
  - Decided we could do CMDB and Service Mapping on our own
  - That was the end of that…
- What changed?
  - New ServiceNow Discovery pricing model
  - Improved CMDB in Helsinki
  - Turnover of “legacy” employees (roadblocks)
  - Recent external security audit

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Getting the Stakeholders' buy-in

- Educating an interim CIO (retired library Dean) on ITSM, CMDB and the value to the organization
  - The cost of implementation vs. the potential cost of not implementing CMDB

- Convincing fellow directors (highly technical)
  - ServiceNow demos not hitting home - Solutions Consultants and ITOM Specialists unfamiliar with higher education environments
  - Lots of questions from directors about cost and work effort
  - Some directors bought in due to pain points, others wanted to keep 20 year old work management model, others saw no benefit to ITSM

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Getting the Stakeholders' buy-in (cont.)

- Developed both a short-term and long term plan to clearly articulate the process
  - Would only discover servers in data center first, expanding across campus after
  - Additional discovery would happen in similar grouping (e.g. desktops, network devices, etc.)
  - Long term would include our entire infrastructure, allow us to expand to other modules

- Found an ally in Operations
- Pointed to recent security audit, explaining how CMDB would allow us to address other issues with Asset Management and Change Management.
- Assured directors that most resources would be from Support Services and Operation groups.
- Researched the heck out of CMDB to answer any questions

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Getting Started

- Initial research proved highly valuable
  - Spoke with former higher education ITSM director with ServiceNow CMDB implementation experience
  - “Show don’t tell”
  - Credentials, credentials, credentials

- Avoided temptation to have high level implementation team with regular meetings
  - Input important, but getting data should be driving force. Save philosophy for specific modules.
  - ITSM coordinator, ITSM analyst and Sys Admins as working team
  - Lots of nudging, coordinating and working meetings

- Credentials, credentials, credentials

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Credential specifics

- Started with Window/Linux guys
- Some servers handled different credentials differently
- Linux machines needed “positional accounts” and not all had them
- Windows credentials remained a mystery
- Our complex network had both firewalls and ACLs
- F5 load balancers needed special access (yes, we want to discover them)

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The Good, the Bad, and the Ugly

- The Good!
  - Helsinki huge improvement over past versions
  - Easily select what data you want to see to keep clean
  - Just about every CI you could ever want is discovered

- The Bad
  - Just about every CI you could ever want is discovered ☺
  - No one model for Universities. There are no answers.
  - Stay the course, don't get distracted by pretty objects

- The Ugly
  - Credentials, credentials, credentials

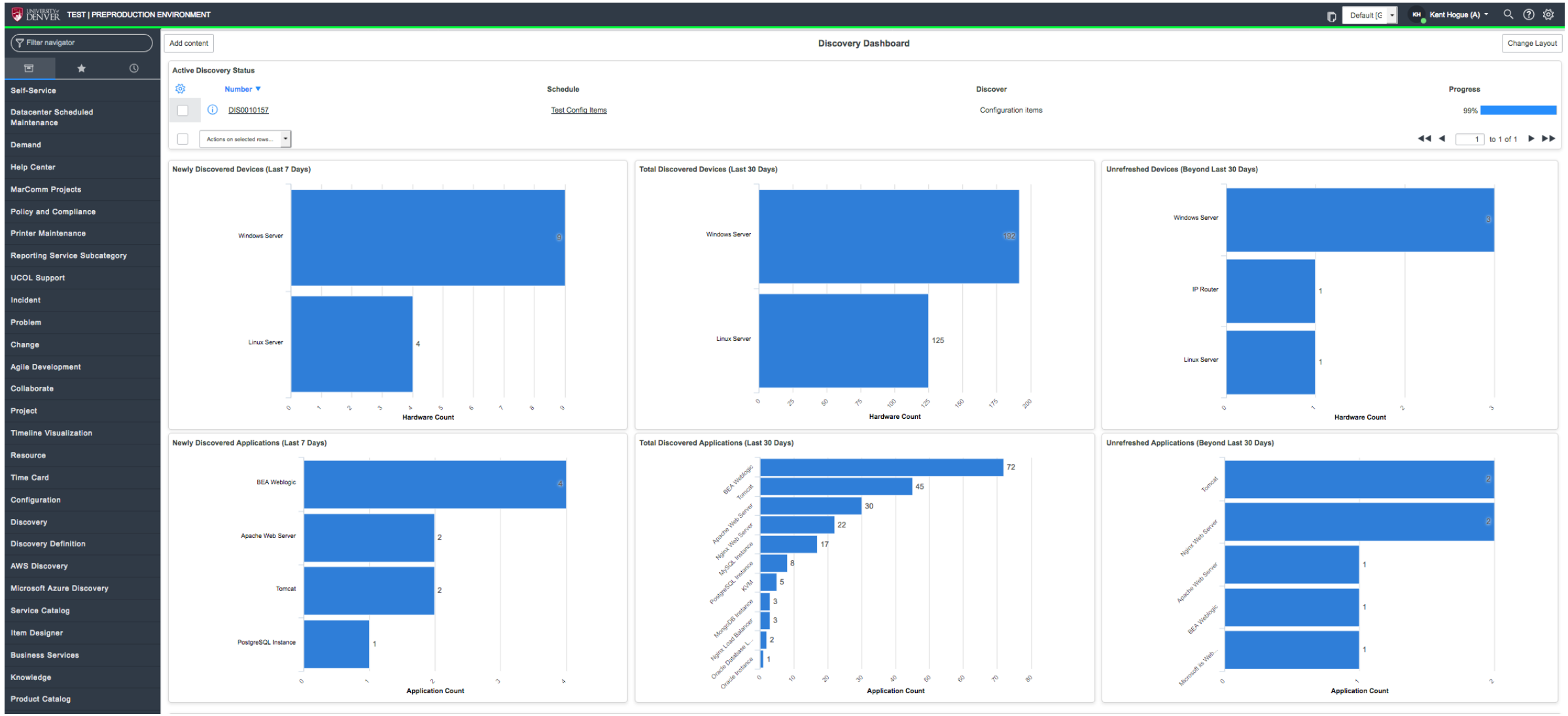
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What we discovered

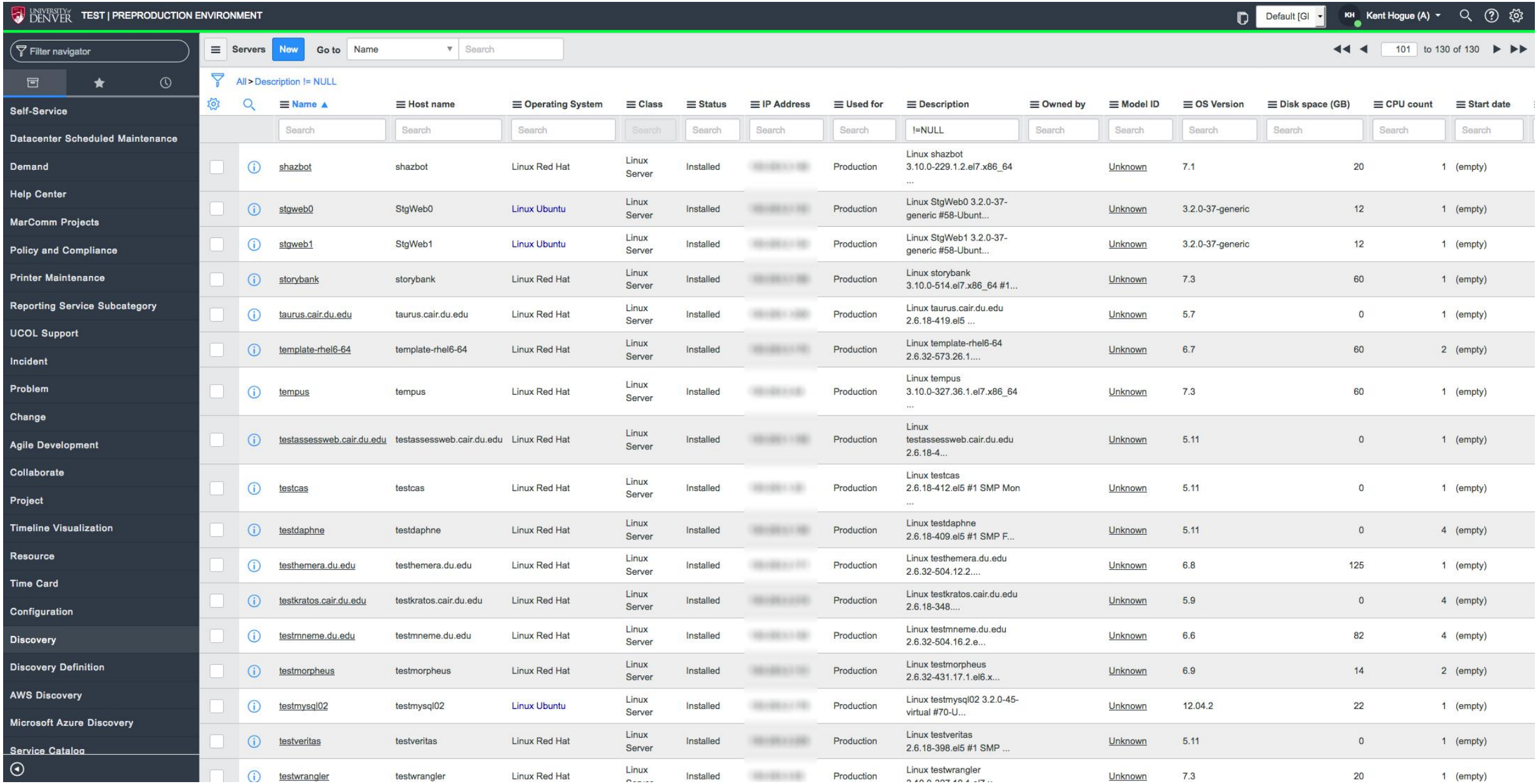
- All our servers across the central IT division – Finally!
- How we discovered other servers on campus
  - Resisted the rabbit hole until this was done
  - How to discover rogue systems without read/write access
  - Reeling them in
- Next level
  - Initially wanted to find all other network devices, such as switches and routers, but decided level of complexity would slow us down
  - SCCM plug-in was an easy next step
  - Application discovery on known servers

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CMDB Dashboard



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Lessons Learned

1. Know your stakeholders and have as much data up front to present. Do not rely on ServiceNow to fully understand the educational environment (yet).
2. Do lean heavily on ServiceNow SCs and ITOM engineers to help with technical guidance.
3. Credentials, credentials, credentials
4. Avoid the temptation to “Discover”, or display, too much
5. Take a horizontal approach, rather than vertical
(start small and spread wide, not deep)

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Our Next Steps

- Continue to map our Business Services and implement Data Certification
- Fully implement Asset Management and Software Asset Management (and roll out to Audio/Visual/Classroom Support team)
- Implement Governance, Risk and Compliance

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Top Takeaways

1

Have both short-term and long-term plans ready for all stakeholders.

Don’t stray from your plan – no matter how tempting

2

“Show, Don’t Tell.”

3

Credentials

Credentials

Credentials

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Thank You

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Q & A

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