Enterprise Network Tech Refresh Project

Presented by:

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Presentation Agenda

- Current Status
- Next Milestones
- Project Triple Constraint Tracking
- Project Budget Planned vs. Actual
- Milestone Based Budget Report
- Project Schedule Planned vs. Actual
- Project Staff Resource Plan
- Issues, Dependencies and Impacts
- Questions

TOC: Enterprise Network Tech Refresh Project Update

Current Status

- All Cisco Nexus switches in Data Center in production.
- All server farms with the exception of CGIS have been migrated to the new Nexus core.
- All new Cisco access layer switches have been installed in the Portland Building. 1st floor of the Development Building PCI switches completed.
- HNAS migration to new network is complete.
- VM Ware hosts migration to new network is complete.
- TPB IBM P-Series networks are up and testing is in progress. SAP networks are being configured and interconnected so that SAP server migration can start.
- Communications Center P-Series networks are up and testing is in progress.
- High speed WAN (IRNE, INET) migration to new network is complete.
- Nexus network services layer has been implemented including new firewalls and DMZ. Awaiting migration with Info Security staff.
- Internet connectivity has been migrated to the new network.
- One additional $40K purchase to replace PCI in-scope WAN switches that are at end of vender support. PCI switches on site-to be configured.
- T1 WAN migration successfully completed June 7th.

Next Milestones:

- PCI WAN switches have arrived and awaiting DC power installation in rack. Completion in July.
- Migrate F5 load balancers and DMZ servers to new network services layer which is dependent on Information Sec resources.

Project Triple Constraint Tracking

	Initial Estimate at TOC Intake as of date: 06/01/2012	**Planned at Baseline** date: 09/01/2012	**Current Revision** *(if applicable)* date: 07/08/2013
Expected Completion	07/01/2013	07/13/2013	08/05/2013
Confidence Level	High (80%)	Very High (95%)	High 80%
Budget	$500,000.00	$500,000.00	$491,207.00
Confidence Level	High (80%)	High (85%)	Very High (95%)
Scope Stability Confidence Level	High (75%)	Very High (85%)	Very High (90%)

Initial Estimate: The estimated schedule (including completion date), project budget and scope as reported at TOC intake

Planned at Baseline: The project baseline is the planned schedule, project budget and scope once the project has been fully defined. The baseline is generally set before project execution begins.

Current Revision: If changes are approved to the project baseline, the updated project schedule and budget must be reported in the Current Revision category above.

Confidence Level:

Very High 85-95% - Extremely low likelihood of missing current schedule, budget and scope targets.
High 70-84% - Low likelihood of missing current schedule, budget and scope targets.
Medium 50-69% - Moderate likelihood of missing current schedule, budget and scope targets.
Low 30-49% - High likelihood of missing current schedule, budget and scope targets.
Very Low 10-29% - Extremely high likelihood of missing current schedule, budget and current scope targets.

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Summary Project Budget

Budget Details FY 2012-13 – Planned infrastructure purchases

TPB Access Layer switches procurement	$332,654
TPB Data Center 10gig equipment	$ 32,308
TPB Data Center new fiber and cabling	$ 26,749
Replace switches at other City locations to meet PCI requirements	$ 19,953
Access layer switches for Checkpoint Firewall project	$ 30,260
On-site spare equipment	$ 9,283
WAN switch replacement	$ 40,000
Total	$491,207

Milestone Based Budget Performance

Project Milestone	Milestone Dates	Budget at Completion BC	Actual Cost AC (as of 11/16/12)	Actual Schedule Complete ASC	BPI = (AC/BC)/ASC
Procure access layer switches	10/1/12-12/31/12	$394,240	$394,240	100%	1
Data Center Nexus core switches in production	11/1912-11/30/12	$59,057	$59,057	100%	1
IBM P-series 10 GB interface network implementation	12/4/12-4/23/13*	0	0	100%	0
VMware 10 GB interface network implementation	1/18/13-2/18/13*	0	0	100%	0
HNAS 10 Gig interface network implementation	1/28/13-2/4/13	0	0	100%	0
Decommission current Data Center 3750 server farms	3/1/13	0	0	100%	0
TPB access layer switch implementation complete	2/13/13	0	0	100%	0
PCI sites access layer switch implementation completed	7/31/13	0	0	100%	0
Decommission old Data Center 6500 core switches	08/05/13	0	0	100%	0
* These milestone dates are dependent on factors outside this scope of this project and may need to be adjusted accordingly					

Budget

First year of a 5 year project:

2011-12	2012-13	2013-14	2014-15	2015-16	5 Year Total
$720,000	$500,000	$850,000	$593,400	$575,100	$3,238,500

- 2011-12 - spending on target for Data Center network replacement
- 2012-13 - begin replacement of wiring closet switches in Portland Building and 1st floor of the Development Bldg.
- 2013-14 - continue wiring closet switch replacement in the Development Bldg, City Hall and begin remote site network equipment replacement, replace Internet edge routers
- 2014-15 - continue wiring closet switch replacement, continue remote site network equipment replacement
- 2015-16 - complete wiring closet switch replacement, complete remote site network equipment replacement

Project Schedule

Milestone \ Task	1-Jul-12	1-Aug-12	1-Sep-12	1-Oct-12	1-Nov-12	1-Dec-12	1-Jan-13	1-Feb-13	1-Mar-13	1-Apr-13	1-May-13	1-Jun-13	1-Jul-13	1-Aug-13
1. Data Center Nexus core switches in production														
2. IBM P-series 10 GB interface network implementation														
3. VMWare 10 GB interface network implementation														
4. HNAS 10 Gig interface network implementation														
5. Decommission current Data Center 3750 server farms														
6. DMZ network available for Krypton firewall migration														
7. Procure access layer switches														
8. Decommission 3750 switch stacks in TPB, City Hall, and 1900 Bldg wiring														
9. WAN site migration to OSPF (**Cancelled)														
10. Decommission existing 6500 core switches														
11. All project milestones and deliverables confirmed complete.														

Legend:

- Milestone tracking on schedule
- Moderate risk of schedule variance
- Known schedule variance

**No longer required due to Cisco access layer switch decision

Project Staff Resource Planning

						Calendar Year 2012												Calendar Year 2013											
Bureau	**Position**	**Role**	**Bill time to Project**	**Planned FTE**	**Monthly Forecast**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Technology Services	Network Engineering and Support	Engineer	No	1	Last																1	1	1	1	1.				
					Current																1	1	1	1	1.				
Technology Services	Info Security	Security	No	.1	Last																.2	.2	.2	.2	.2				
					Current																.2	.2	.2	.2	.2				
Technology Services	Project Manager	PM	No	.2	Last																.2	.2	.2	.2	.2				
					Current																.2	.2	.2	.2	.2				
Technology Services	Server Team	Server Support	No	.1	Last																.1	.1	.1	.1	.1				
					Current																.1	.1	.1	.1	.1				
					Last																								
					Current																								
					Last																								
					Current																								
Total Staff FTE				**1.4**																	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**				

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Issues, Dependencies and Impacts

- Schedule coordination with other projects
  - Firewall refresh-Info Security
  - Firewall/DMZ and Internet connectivity migration
  - Server migrations coordination including SAP and CGIS

Questions

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